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ABSTRACT

The Community College of Maine (CCM) makes use of new telecommunications and information technologies to overcome the barriers of geography, cost, and time that have always limited access to higher education for Maine's rural communities. Currently, the Interactive Television System (ITV) is the primary means used to broadcast CCM courses, but computer conferencing, videodiscs, fax exchange, audioconferencing, and electronic mail are increasingly being used. By spring 1991, during the second year of college operations, 40 courses were being transmitted to 3,655 registrants in over 75 different locations. Eleven off-campus centers coordinate registration, academic advising, admissions, financial aid, and other services for students in the region, who also attend classes at these centers and 50 high school sites. Materials distribution to and from faculty is funneled through the centers by way of the Office of Off-Campus Education at the University of Maine, Augusta. The centers also provide access to URSUS, the University's computerized public access library catalog. A 1991 Annenberg/Corporation for Public Broadcasting "New Pathways to a Degree" grant will allow CCM to upgrade its curriculum, support services, and faculty/staff development. The CCM network is also used by organizations across Maine for long-distance business meetings and training sessions. Approximately 475 hours of teleconferencing and special events were produced in 1990-91. Appendixes, constituting over half the annual report, include: (1) maps of ITV coverage; (2) enrollment data; (3) CCM site maps; (4) CCM off-campus library requests; (5) 1990-91 Annenberg/CPB funded proposals; and (6) information on ITV System users. (JSP)

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The Community College of Maine

ED343622

Annual Report

1990-1991

JC 920 142

University of Maine at Augusta
June 30, 1991

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THE COMMUNITY COLLEGE OF MAINE

Annual Report
Year Two
1990-1991

Forward

By George P. Connick
President, University of Maine at Augusta

Newton Minnow, former head of the Federal Communications Commission under President John F. Kennedy, is best remembered for his 1961 speech in which he referred to television as a "vast wasteland." Last month, on the thirtieth anniversary of that famous indictment, he assessed the progress of television since that time and he summarized by suggesting that television has evolved to become the major educational institution in this country. He noted that the average American watches over seven hours of television each day and that it is the major source of information and entertainment for people of all ages. Because of its enormous influence and impact on people's lives, more than ever before, he said, there is a need to put the vision back into the concept of television.

Terrel H. Bell, U.S. Secretary of Education from 1981 to 1985, and author of the landmark report on American education titled A Nation at Risk, wrote recently that "what is needed is a broader vision of teaching. Classroom technology greatly enhances the powers of each teacher to teach and each learner to learn by utilizing computers, networks, educational software and multimedia tools. We simply must recognize how outdated our current teaching practices are."

The project we refer to as the Community College of Maine, created to provide greatly increased access to educational opportunity for Maine citizens, is also addressing the issues raised by Minnow and Bell in a number of different ways.

Only five years have elapsed since the plan for the Community College of Maine was presented to the Board of Trustees and much has happened during that interval. The plan was scrutinized, discussed and revised over a period of two years before the Board approved it for implementation in 1988.

The following year was spent designing and constructing the telecommunications/ITV network and the off-campus student support services.

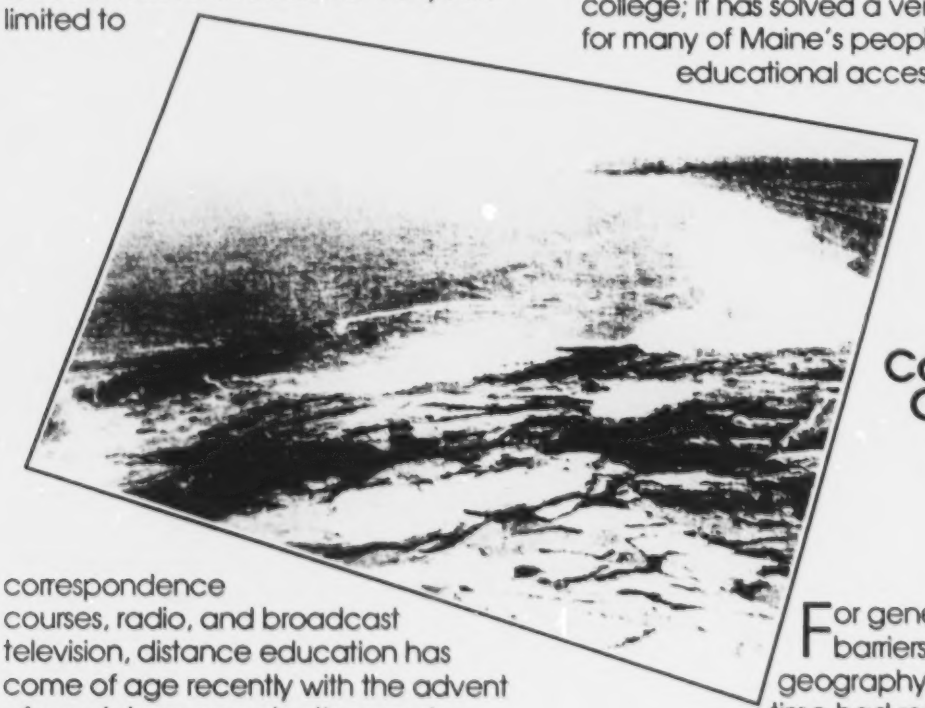
1990-91 marked the second full year of operation of the community college and this report provides a detailed accounting of the activities and events of that year. What is written in this report is what can best be described and documented in broad institutional terms. What is not included are the numerous ways in which the faculty, staff and students involved with the Community College are addressing the issues raised by Minnow and Bell. These developments are more subtle, more spontaneous, more individualistic, and more entrepreneurial. Many faculty and staff have a vision about how technology can enhance and improve the learning process, not only for distant students but for those in traditional classes as well.

As the Community College begins its third year of operation, we are aware of the opportunities that are available to us not only to provide educational access but also to significantly alter and improve the educational process itself. It is an exciting and rewarding challenge.

What is Distance Education?

Distance Education is often defined simply as a form of education in which learner and instructor are separate during a majority of instruction. But unlike independent or self-directed study, distance education usually implies the presence of an institution which plans curriculum and provides resources and services for its students. For years limited to correspondence courses, radio, and broadcast television, distance education has come of age recently with the advent of new telecommunications and information technologies. These have led distant learners and their instructors into new possibilities for interaction and information access. Adults, particularly, find distance education, with its savings in commuting time, an easier fit into busy lives. Adults are comfortable, too, with the independent structure of the distant classroom and are more likely to possess the self-motivation to focus on educational goals away from a campus setting. Fitted with the new technologies, distance education offers greater opportunities to individualize instruction, as communication between student and instructor broadens beyond face-to-face dialogue and particular time. Distance education, then, becomes as inclusive or as personal as the individual and instructor elect.

In Maine, distance education is more than a convenient way to attend college; it has solved a very old problem for many of Maine's people—educational access.



The Community College of Maine: A History

For generations, barriers of geography, cost and time had restricted rural communities in Maine from participating in higher education. Access to the University of Maine System's programs and services was a growing concern of

the UMS Board of Trustees. In 1981, an ad hoc committee of the Board called for the development of a community college concept which would help address the problems of access, particularly for "older, part-time and commuter students." In 1985, the Board charged the University of Maine at Augusta with the responsibility for developing a plan which would make that concept a reality. After six months of Systemwide planning, the solution emerged in the form of the Community College of Maine Plan. On November 16, 1987, the Board of Trustees of the University of Maine System unanimously approved the proposal for the Community College of Maine. Almost two years later, on September 5, 1989, the Community College of Maine began transmitting thirty-six courses to over forty-seven locations throughout the state.

The Community College of Maine was developed by the University of Maine at Augusta in conjunction with the other campuses of the University of Maine System, Maine's Technical Colleges, Maine Maritime Academy, Maine Public Broadcasting Network and the State Department of Education.

The Community College of Maine is continuing to move forward in several areas. Courses are created or revised to take full advantage of the variety of technological media. Services to remote students continue to be expanded and improved. New technologies are constantly appraised for future incorporation into the system. Computer conferencing, for example, can help enhance the opportunities for students to communicate among themselves and with faculty. New degree options, such as associate degrees in Business and Social Services, may also be offered.

The development of the Community College of Maine and its Interactive Television System has provided Maine with a unique educational structure and a powerful new technology, both of which are devoted to serving the needs of Maine citizens of all ages, regardless of where they live. Utilizing both faculty and facilities to advantage, this electronic infrastructure shrinks barriers of time and distance, bringing new educational opportunities to isolated, rural communities at a time when the contributions of a literate, well-trained citizenry are essential to Maine's economic well-being.

Funding

Governor John McKernan, in January 1988, recommended to the Maine Legislature the first year funding of $2.2 million to initiate the plan. The funding was approved in April 1988, initiating the development of the ITFS (Instructional Television Fixed Service), point-to-point microwave and fiberoptic telecommunication system as well as a network of off-campus centers and sites. An additional $1.55 million was approved by the Legislature for FY90. Funding in the amount of $3.5 million dollars for the construction of the fiber optic spine was received by the University of Maine at Augusta from federal Title III grants. In 1990, UMA received a $300,000 grant from the Annenberg/CPB Project to help improve academic and support services for distant learners and establish a Center for Distance Education to develop

models for faculty and staff training in distance education.

Technology

To date, interactive television has been the primary means of broadcast of CCM's courses to distant students. Other information technologies, however, are increasingly being used to help expand and enhance both ITV and traditional courses. Computer conferencing, videodiscs, fax exchange, audioconferencing, and electronic mail are some examples of the ways technology can help quicken the connection between instructor and student and open them to the world of information beyond the University.

In 1990-91, ITV remains the technological backbone of the Community College of Maine, and this year has seen a continual improvement in the reliability of this system. A two-way audio and video fiberoptic DS3 spine, leased from New England Telephone, connects electronic classrooms located at each of the University of Maine System campuses.

This allows broadcast of two way audio/video classes and teleconferences over three channels. A major goal of the University was to allow programming to originate at each campus, so every campus has at least one electronic classroom from which programming can be transmitted. The Master Control Room in Augusta controls the signals that run on the fiber.

From each campus, the classroom signal is broadcast via Instructional Television Fixed Service (ITFS). ITFS provides the ability to "regionalize" the ITV System, allowing two courses simultaneously to be transmitted statewide or for the seven campuses to broadcast two courses to their own region at the same time. ITFS is a microwave system that uses an omnidirectional antenna and a downconverter that converts the signal to a standard television channel which may be received by an ordinary TV set. In addition to the television, each classroom also has a cordless telephone that is used for interacting with the origination site and all other distant sites and a VCR to record classes and programs.

Students at remote ITV classrooms are taught by a professor who is simultaneously teaching to a classroom of students on campus. In this electronic classroom, one camera focuses on the instructor while another focuses on charts, diagrams or other visual materials. The instructor and visual images are electronically "transmitted" to the remote sites where the students

can see and hear the instructor on television monitors. An audio talk-back system permits students in these distant locations to interact with the instructor and with other students. A student picks up the phone, turns it on, extends the antenna, dials the memory number and is connected via a phone bridge to the originating site and other classrooms throughout the state. Up to four sites can participate at one time, and calls may be held in a queue and answered in turn.

This year an addition to the Learning Resources Center at UMA was completed and all of the ITV technical facilities there were moved into this new space. All of the moves occurred during the Spring 1990 semester and were accomplished without missing a single class or teleconference. The moves involved every member of the UMA ITV staff, and this team produced a facility that will serve the University's needs for many years to come.

Video production capability was increased in Year 2 by the addition of a producer/director whose primary responsibility is working with faculty to produce support materials for ITV classes. The producer/director also produces public relations, recruiting and other institutional support videotapes as well as producing teleconferences and special events.

Support for the final year of the Title III grant includes the initial planning for a third channel of ITFS in the UMA region, including a third broadcast classroom at UMA. The University of Maine at Presque Isle will also equip a second classroom through the partial support of Title III funds.

Appendix A contains maps depicting the fiberoptic cable connection and ITFS areas of coverage.

Academic Profile

An Interview with Jeffrey Klivans

Jeff Klivans, Assistant Professor of Business at UMA, has been teaching courses on CCM's interactive television system since the summer of 1989.

Why did you decide to teach on CCM's ITV system?

I was talking with my wife earlier today, and I said, "I'll bet in ten years from now I will have the ability to teach my courses over the ITV system right from my house and be able to put together the entire course via high tech applications." It seemed to me that when I was asked if I was interested in teaching over ITV, a challenging opportunity to do something new and different was being offered to me. Because of this, I undertook teaching on the ITV system.

Has teaching distant students altered you teaching style? How?

I would say that the challenges of teaching at a distance versus teaching in a traditional classroom make you work harder, make you organize in more detail and make you think about doing things which you have always done one way differently.

Enrollment

The Community College of Maine was designed to serve the adult student. According to data reported in CCM system evaluations since the fall of 1989, it has succeeded. The Evaluation of the fall 1990 semester of the Community College of Maine reports that 60% of CCM students are over the age of 30, and 74% are female. The typical CCM student travels 10 1/2 miles or less to take their course, compared to the estimated 32 miles.most would have to travel to a UMS campus.

Enrollment in CCM courses has continued to rise. Fall 1989 began with 2492 registrations in 31 different courses at 36 sites across the state. By the spring of 1991, 3655 registrations were counted in 40 courses offered at over 75 locations.

Appendix B contain a series of charts which illustrate enrollment growth in CCM from Fall 1989 to Spring 1991:

Chart 1: Receive Enrollment
Fall 1989 - Fall 1990

Chart 2: Receive Credits

Chart 3: Receive Credit Bar Graph

Chart 4: CCM Enrollment Breakdown
Fall 1990

Off-Campus Organization

The Community College of Maine is also defined by its statewide network of 11 off-campus centers and 50 high school sites. These centers and sites serve the majority of students who take CCM courses and offer support services and programs to geographic areas

What has surprised you most about teaching on ITV?

I feel that I have adapted significantly to the characteristics of teaching over a distance. The surprise has come in that students also seem to agree that I have adapted well to teaching over a distance. I enjoy very much the different modes of interaction that we have which replace the traditional classroom and can often times, I believe, be more intimate than teaching traditional students in a traditional classroom.

How?

Well, the lack of face to face interaction with students, both on my part and on the students' part, allows you to become more intimate in the things that you discuss, how you discuss them and the levels at which you discuss them.

What have you done to make students in distant classrooms feel more involved?

I've thought a lot about this, and I've come to the conclusion that to involve students in the distance classroom requires a rebuilding of the learning environment. Because students in a distant classroom lack the ability to interact on a face-to-face basis, you have to supplement the learning environment which occurs when you are face-to-face. I do that by replacing corridor interaction with other methods, by talking with my students over the telephone, not only during classroom time but from my office and my home. I do it by encouraging them to correspond with me freely, both at home and on campus. I do it through written interaction, and I do it by trying to involve my distance students as they would as a matter of course be involved in a traditional classroom.

beyond a reasonable commuting distance to a University campus. With a few, highly qualified staff, the centers serve as mini-campuses where students find individualized attention in an intimate, supportive environment. Staff and students have the rewarding experience of working together through each developmental phase of a student's university career, from time of admission to day of graduation.

The responsibility for coordinating these off-campus locations rests with UMA's Office of Off-Campus Education (OCE). A network of AT&T workstations located at each center and on each campus is used to communicate with staff at all locations regarding activities taking place in each class. Each of the 77 sites across the state is equipped with a fax machine, allowing any notification from the Office of Off-Campus Education at UMA to reach these receive sites in a matter of minutes.

Materials distribution to and from faculty is also funneled through UMA's Office of Off-Campus Education. All course materials, including syllabi, handouts, quizzes and exams are sent to this central office for copying, collating and dissemination to all locations. Assignments are sent by US Mail or United Parcel.

Students may register "on-line" at a center or on campus, and high school sites have material available for registration by mail. Students register at the University campus responsible for the region in which they are taking the class, regardless of the campus originating the broadcast.

In the fall of 1990, all book orders became centralized at the bookstore at UMA. Students at off-campus locations

How do you think computer conferencing and other information technologies will enhance communication?

It will be great. Computer conferencing will add yet another dimension. I returned home this morning to find a student who was interested in signing up for an ITV class which began last week. She had not been able to reach me over the phone, but she had the availability of a fax. She sent me a fax note, and I called her back on her telephone, but it did not answer. The second class was that evening. So I sat down and briefly wrote her a note welcoming her to the class and sent along with that note a copy of the syllabus, the course schedule and the requirements.

Having the ability to use computer conferencing will allow me to interact as I do with individual students now via fax notes, but I'll be able to do it with a number of students at the same time, and that will enhance not only the input that comes to me but the input that comes from other students and returns to other students without having to come through me as a filter. So the things that I discuss with individual students now outside of the classroom, I will be able to discuss with a number of students. They, in turn, will draw each other into those discussions.

You've been teaching ITV courses since 1989. In the time that you have been teaching on the system, have you noticed any change in attitude on the part of students toward these classes?

Yes. I find now that students are much less concerned with the technical aspects of the interactive television system. We do not discuss technical problems as we used to. We deal quite second-naturedly with picking up a telephone and calling in. We are more interested in the learning that's

may call a toll-free number to order their books, which are mailed directly to them.

In 1990-91, the Office of Off-Campus Education served as the contact institution for Operation Opportunity, a special scholarship fund initiated in 1990 to allow qualified GED or adult diploma recipients to take up to two courses at one of Maine's Technical Colleges or University campuses. In partnership with Maine Education Services (a private, non-profit corporation), and Maine's education and business communities, The OCE office, through its toll-free number, will continue to provide information about the program to interested adults across the state. In the fall of 1990, 206 people were offered scholarships. 129 were offered in the spring of 1991.

On September 5, 1989, The Community College of Maine began broadcasting to 47 locations across Maine. CCM now broadcasts to 77 locations.

Fifteen new sites were added in FY90-91, including The Baxter School for the Deaf. The Community College of Maine hired an interpreter to work with deaf students taking CCM courses at the school. A special tele/type machine (TTD) was installed so these students could readily communicate with the instructor in the broadcast classroom.

GTE in Waldoboro became CCM's first corporate site, with 21 employees registering for Fall 1990 classes held in the plant's newly outfitted conference room. Negotiations among GTE, XCel Cable Company and UMA resulted in an agreement that allowed GTE to purchase channel space on established cable lines, thus eliminating the need for a costly tower.

Maine State Prison also became a CCM

going on rather than the system itself. I think the system is becoming more transparent, which is what it should be.

CCM has received a grant from the Annenberg/CPB Project to help improve the quality of courses offered to distant students. Faculty and staff development workshops are one step in that direction. In what other ways could CCM courses and services be improved?

The workshops that are going on are very interesting. The change that is being undertaken because of these grants and the workshops is significant. I think that in order to get the most out of this type of resource, faculty have to have the opportunity to digest all of the various aspects which are available to them now. It is a two-step process. The first step is to become comfortable with the system as it is. The second is to understand that there are a number of different high-tech tools that can be used to enhance the learning situation. But it takes time to become comfortable with the system. Instructors should have the opportunity to incorporate these high-tech approaches into their course as they see the benefits.

Have you found any difference in the quality of work you receive from distant students and students in you traditional, on-site classes?

Yes. I've noticed a couple of things. In preparation for a brief question and answer session that I was involved in just recently, I put together some statistics having to do with a traditional class that I

site in Spring 1991, with 25 people signing up for classes in that semester. Courses delivered via videotape supplement courses taught by faculty on- site.

High schools wishing to become part of the Community College of Maine must first apply to the Maine Department of Education. The Department, in turn, provides UMA with a list of approved schools in priority order. After approval by UMA, the Department of Education notifies each school of their selection. Sites are selected based on the Community College's primary goals of access to remote locations and maximum geographic diversity.

In Fall, 1990, the Board of Trustees approved the transfer of responsibility for the Rumford/Mexico Center from UMF to UMA. High school sites in the UMF region were also transferred to UMA. With the closing of the Office of Continuing Education at UMF, it was agreed that UMA was more appropriately staffed to provide services to the increasing numbers of CCM students enrolled at these locations.

Appendix C provides a series of maps detailing the locations of CCM off-campus centers and sites.

teach in Augusta and the distance sections which I taught during the same semester. I looked at the number of students who started the course and the number of students who finished the course. I looked at the grades that were earned, and I looked at the test scores. On the whole, I found the two different groups of students to be very similar, but I found that, as far as grading goes, the ITV sections were somewhat higher, as were their average examination scores.

What has been the single most frequent comment from students concerning ITV courses?

The comment I hear most from ITV students is that they appreciate having the opportunity to take classes in locations where they would not otherwise be able to do so. They also say they enjoy the opportunity of being able to interact—not necessarily with the instructor—but with students from other parts of the state, which they could not do in a traditional class.

Does the fact that students have limited supervision in remote locations cause you any concern? What kind of student have you found does best in these circumstances?

I am aware of the fact that students may have difficulty with fellow students in distant locations. I am not there, nor do I feel that anyone should be there to monitor these situations. I believe that if the situation gets out of hand, it will be brought to the attention of the proper individual. If the students are bothered enough by other students, they will let it be known.

I am convinced that the demographics of my students in my ITV sections are very similar to the demographics of my students in my traditional sections. I know that's true because I ask for profiles.

What have you enjoyed most about the experience?

The challenge of doing a quality job in a new endeavor. The opportunity to be an innovator. The chance to interact with students all over the state.

Academic Council

In November, 1987, the UMS Board of Trustees approved the formation of the Academic Council, an advising and planning body composed of one individual from each University campus. The Council is chaired by the Provost at UMA and reports to UMA's President. Charged with making CCM scheduling recommendations, the Council also selects faculty to teach those courses and develops policies and procedures related to the Community College of Maine.

Schedule building for CCM's statewide courses is a Systemwide process. The Office of Enrollment Services at UMA coordinates and recommends the schedule of academic courses to the Academic Council. The UMS Academic Council approves the semester's roster of courses, which is then sent to the Chief Academic Officers for their assignment of interested faculty. Each campus relies on its own internal selection process when making faculty recommendations to their Chief Academic Officer. The Office of Distance Education at UMA coordinates and distributes time on the ITV system for associate, baccalaureate, graduate, technical college and secondary courses, as well as teleconference time. The Vice Chancellor for Academic Affairs, in consultation with the Chief Academic Officers, assigns graduate courses and faculty to allotted times on the schedule. The Office of Off-Campus Education at UMA works with the Maine Department of Education and the Technical Colleges to schedule their requested courses. The final schedule is recommended by the Academic Council to the President of UMA.

The Community College of Maine has a full schedule of courses. High school, associate degree, baccalaureate and graduate courses are broadcast throughout the day on weekdays from 8:00 a.m. until 10:00 p.m., and on Saturdays from 8:00 a.m. until 4:00 p.m. Timeslots are also available for University non-credit programming as well as for non-University use of the system, including training and statewide teleconferences. An ITV Advisory Council, representing non-University organizations throughout the state, helps develop policy and procedures governing use by non-University users.

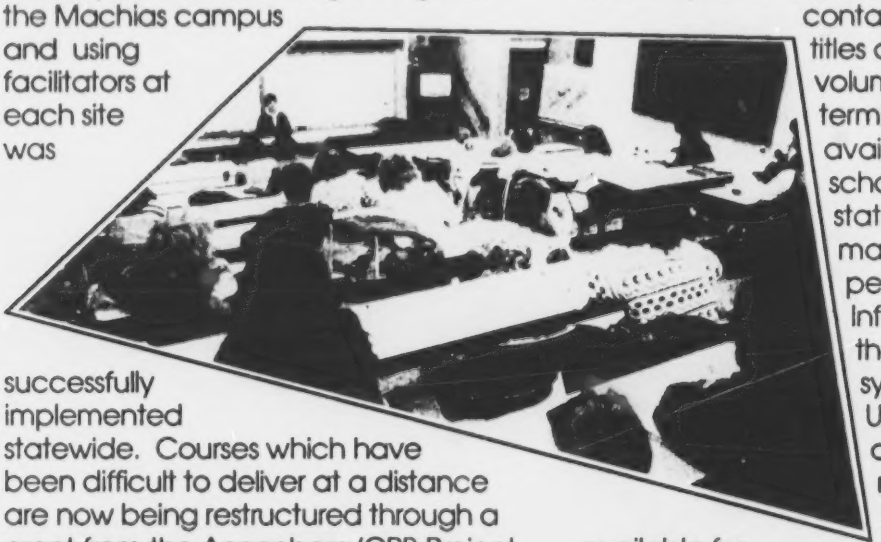
Campuses are also allotted time on the schedule to broadcast courses in their own geographic region. These "campus options" allow campuses to transmit courses of particular importance to the students in their area. Campuses may also elect to share a campus option course.
In 1991, a CCM Faculty Advisory Council was established to provide a faculty perspective and to make recommendations to the Academic Council involving issues such as policies and procedures for course selection and scheduling for distance education, including the role of faculty. The Council consists of one full-time faculty member from each of the University campuses.

Degree Programs

Students at all locations may earn an Associate Degree in General Studies from UMA, a sixty credit hour program designed to give the student maximum opportunity to explore various academic areas. A student may

transfer from this program to the appropriate baccalaureate degree program after graduation. In addition, most of the courses required for associate degrees in Early Childhood Education, Social Services and Business are available. CCM students may choose from approximately 40 college courses broadcast live each semester on ITV.

Developmental courses must be carefully designed for delivery to students at a distance. In CCM's second year, a course in developmental math originating from the Machias campus and using facilitators at each site was successfully implemented statewide. Courses which have been difficult to deliver at a distance are now being restructured through a grant from the Annenberg/CPB Project for delivery to distant students.



Student Services

Off-campus students are served by their regional centers with on-site support services, as well as by the live interactive television programs regularly broadcast. The off-campus centers coordinate registration, academic advising, admissions, financial aid and other services for students at the centers and high school locations in their region. A toll-free number is available for use by students, faculty, or anyone wishing information about courses and services. In addition, the Office of Off-Campus Education provides a handbook to each student enrolling in CCM courses.

Students at University campuses and off-campus centers have access to URSUS, the University's computerized public access library catalog. This database catalogs the book holdings, serials, microfilm, maps, documents and audiovisual materials of the University of Maine System. Currently, URSUS contains over 600,000 titles and 1,000,000 volumes. URSUS terminals will soon be available at high school sites statewide. Students may access periodicals through Infotrac, a state-of-the-art computer system located at UMA. In addition, a toll-free library reference number is available for those wishing assistance or information. Biographic and research instruction is regularly provided to students via ITV by library staff.

In 1990-1991, a search of periodical literature became available on the URSUS system through CARL (Colorado Association of Research Libraries). Students in remote locations are now able to request library materials directly from their URSUS terminals. By Fall 1991, students will also have access, through

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URSUS, to the holdings of the Maine State Library and the Law Legislative Library in Augusta.

Appendix D lists student requests by center/site from July 1, 1990 to February 28, 1991.

In CCM's second year, on-air student orientations became a regular feature, as has an ongoing student services program, "Insider Information: Secrets to Educational Success." This popular program helps students apply proven study skills to the context of their college program and understand what it means to be a successful student. A videotape library which will give students basic information and advice on all aspects of student life will soon be available at campuses, centers and sites statewide. In January 1991, UMA hosted a live, satellite program for student services professionals, "The Case for Adult Student Assessment."

Faculty and Staff Development Opportunities

In January, 1991, UMA was awarded $300,000 from the Annenberg/CPB Project "New Pathways to a Degree" Program. This grant will allow the Community College of Maine to upgrade its curriculum, support services and faculty/staff development. Specifically, the project will:

~ offer courses to satisfy requirements for the AA in Liberal Studies, including courses requiring more interactive styles of teaching and learning, such as laboratory science requirements, composition, communications, and advanced mathematics;

~ add computer conferencing, electronic mail and fax machines to support interactive styles of teaching and learning;

~ expand the resources available in the broadcast classrooms, including computers and a variety of electronic equipment such as videodisc players;

~ develop an innovative strategy for showing faculty, student support staff and technical staff how to teach adults and disabled students through new uses of technologies.

Development of the program is supported by a new Center for Distance Education at UMA. This Center will serve as a model for faculty and staff development in the use of information technologies in education. In 1991, a series of faculty workshops were delivered via ITV by the Center on a number of topics, such as adult development and learning theory and curricula and service development.

A Summer Institute was held at UMA from June 5 through 7, 1991. The Institute offered selected UMS faculty and staff intensive, hands-on workshops and discussion with experts in the field of distance education.

The Center will eventually offer programs in distance education to individuals and institutions across the country, enabling the Center to disseminate its work more widely and to become increasingly self-supporting.

Appendix E lists UMS faculty and staff proposals which were awarded funding this year under the Annenberg /CPB Initiative.

UMA's Fourth Annual Conference on Distance Education

On September 27 and 28, 1990, UMA sponsored its fourth annual distance education conference, "New Horizons for Educational Innovations." This annual conference is a forum for the exchange of information on the developing technology and techniques in the teaching/learning process. The primary focus of the conference was the application of technology in the classroom and the effect it has on the roles of teaching, learning, training, program development, management, auxiliary services, and the traditional program.

Evaluation

Evaluation of the Community College of Maine by its students and faculty is an ongoing part of its organization. UMA contracts with the University of Southern Maine's Testing and Assessment Center for each semester's two part evaluation: 1) an assessment of student perceptions of the CCM interactive television system and student academic performance, and 2) an assessment of the CCM faculty perceptions of their teaching experience and of the system as a whole. Response from students and faculty have been encouraging and their suggestions helpful in our efforts to refine the system into a more effective and interactive network.

An Essay by Student Nancy Young

Rumford/Mexico Center

Student life at an off-campus center is different than campus life, but, in my opinion, it has many benefits. As with any aspect of life, participation increases quality. On a large campus, students are apt to get lost in the crowd, but, at the Rumford/Mexico Center, there seems to be a bond among students which helps to integrate the college experience.

On a large campus, there are many extra-curricular activities to get involved with, but most non-traditional students have time-management problems that don't allow for more than school, work and family. Being a student at a center can eliminate travel time, which decreases some of the stress of playing several roles.

Interactive television is, in my opinion, Maine's bridge to higher education. ITV reaches out to everyone throughout the state, inviting them to learn, to share, to grow, and to communicate. I believe that students can get a high-quality education through ITV by, again, increasing their participation. The concept of getting out of anything whatever you put into it applies to education in general, but, perhaps, applies specifically to ITV education.

I was the President of the Student Government Association at the Rumford/Mexico Center from the fall of 1989 until May of 1991. This has been both a beneficial and educational experience, and one that I would never have undertaken on a larger campus. It has been a challenge to help organize the SGA and to promote student involvement. As with any organization, it has taken time to generate interest, but we have become an active and vocal support system for our students.

Other benefits of an off-campus center include having advisors available daily, having access to a student services coordinator, having cultural events and other activities within a close proximity to students, and the feeling of belonging and being a part of the whole. I am grateful for my experiences at the Rumford/Mexico Center and know that I will remember those experiences as the integral times of my life as a student.

The Fall 1990 Evaluation Report of the Community College of Maine continues to give good grades to courses and services delivered through interactive television. Student ratings of the technical component of the system were positive and students reported being satisfied with course delivery, instructors and their ITV experience. Academic achievement was well above average, and no differences were found between grades of students in the broadcast sections and those in the receive sections of the courses.

Students are motivated to take CCM courses by such reasons as wanting to complete a college degree and interest in course content. Additionally, location appears to be an important factor in students' decisions to take courses.

Students continue to write comments which reflect appreciation for the opportunity to participate in higher education which the ITV system affords them. Based on the studies conducted thus far, it appears that the Community College of Maine and it's interactive television system are serving the citizens of Maine well.

A Day in the Life of a Special Event

Maggie Gardiner, Program Manager

Adaptability, flexibility, a sense of humor and proportion are all good qualities to come to work with on the morning of a "special event."

The morning usually starts with an attempt to find out if everything is all set. The first stop is to check with the engineer to find out whether the cameras are operational, is the audio set up, do we have enough microphones of the right variety? Various members of the staff are adjusting cameras, fine-tuning the set, setting up chairs, redirecting lights. Can we fit the people in or are we over-booked? Where can we position the cameras without blocking the view of too many people and still get a decent shot? Since the studio looks and sounds only mildly chaotic, the determination is that sure, it is all set—at least this part of the operation.

The next stop is Master Control. Is the computer going to make the switch connecting the feeds at the right time? Do we know what kind and how many videotapes to record? Do we have the correct name of the event? What time do the other sites get on-line? When can we do the audio check? By this point the adrenaline is rising. Is the system running smoothly this morning? Did the blizzard last night cause any problems anywhere? No? Good—everything is all set.

Who has the videotape to open the program? Has the music been edited? Has everyone's name and title been entered on the character generator? Did we make any typos or spelling errors? Who's going to roll the tape and when? Do we have enough time for a rehearsal? Boy, it sure would be nice.

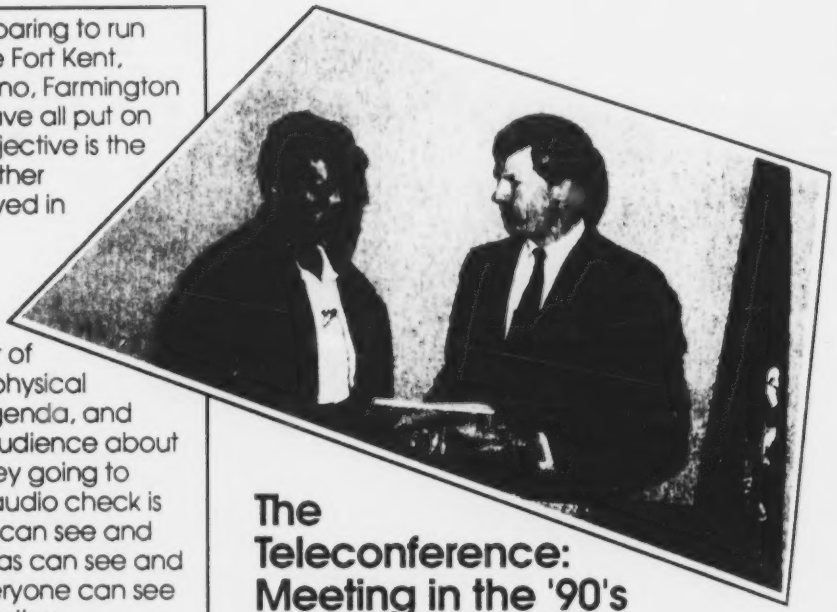
Forty-five minutes before the event is scheduled to begin, people get in their places—statewide. In Augusta the camera operators, the director and the

technical director are preparing to run checks on the system. The Fort Kent, Presque Isle, Machias, Orono, Farmington and Portland operators have all put on their headsets. The first objective is the audio check with all the other locations that will be involved in the event. Last minute procedural details are discussed. All the operators have been alerted about the number of people at the event, the physical setup of the rooms, the agenda, and what they are to tell the audience about participation. How are they going to interact and when? The audio check is completed. Yes, Fort Kent can see and hear Portland, and Machias can see and hear Farmington, and everyone can see and hear the Augusta location.

The first audience members always show up earlier than you had hoped, and the presenters show up later. It's just one of those things. So, a few minutes before air, with an audience of several hundred, you still don't have a clue where the speaker is. Well, hold the music. And you tell the TD to tell the sites we may be starting a little late.

Then, in the nick of time, the presenters arrive. The floor manager grabs the mics and puts them on the presenters, puts the presenters in the chairs, gives them a few instructions while the camera operators do a last chance focus. The TD checks that all the sites are ready. The director questions audio again. And we're off. Roll tape, bring up the music, Camera Two ready—you'll be the opening shot. Fade titles, fade music, bring up the audio, cue the presenter. Camera Two zoom in slowly. The program is all set.

For a list of the organizations who have used CCM's interactive television system for teleconferences and special events, see Appendix F.



The Teleconference: Meeting in the '90's

Organizations across Maine are discovering that CCM's ITV network is an efficient forum for business meetings and training sessions. This time-efficient, cost-effective network has become, for many, a welcome alternative to travel, especially in this state of widely dispersed population. Approximately 475 hours of teleconferencing and special events were produced in FY90-91. In August, 1990, the Office of Interactive Television at UMA began using a Network Reservation and Computing System (NRACS) to efficiently route the television signal for statewide teleconferences.

Special events are a more elaborate form of teleconference, requiring special planning and extensive use of graphics. In April of 1991, the Governor hosted actor Arnold Schwartzenegger as part of his regular lecture series. Mr. Schwartzenegger took advantage of CCM's interactive television system to discuss the role of physical fitness with high school students across the state.

Marketing the Community College of Maine

A number of marketing techniques were employed in FY 1990-91 to promote the Community College.

Nearly 245,000 CCM course guides were mailed prior to each semester. The 28-page guides included basic information about registration and services and listed all of the locations of the courses offered over the system.

Television commercials, designed by CCM's production staff, used the popular "storyline" approach and ran on stations in Portland, Bangor and Presque Isle. Commercials were targeted to run after the holidays and before the start of each semester.

Newspaper ads were run in many newspapers throughout the state. Many of the ads were developed and placed by local campuses, such as the University of Maine at Presque Isle and the University of Maine at Fort Kent. In the UMA region, CCM ads were placed in the *Courier Gazette*, Rockland; *Times Record*, Brunswick; *Rumford Falls Times*, Rumford; and the *Belfast Journal*, Belfast.

CCM also "piggybacked" with the University of Maine's Continuing Education tabloid, which is circulated in the Weekend Edition of the *Bangor Daily News*. The combined circulation is over 80,000.

The CCM *Newsletter* was issued in August. A total of 6,000 copies of the newsletter was printed and nearly 5,000 mailed to UM System faculty and staff, along with mailings to college presidents, Maine legislators, educators and individuals prominent in the field of distance education.

In 1990, a trim, fold-out brochure describing the Community College of Maine was created for distribution to individuals requesting information about the program.

The listing of CCM courses also appeared in many course guides at other campuses. CCM courses were integrated in many campus course schedules throughout the System.

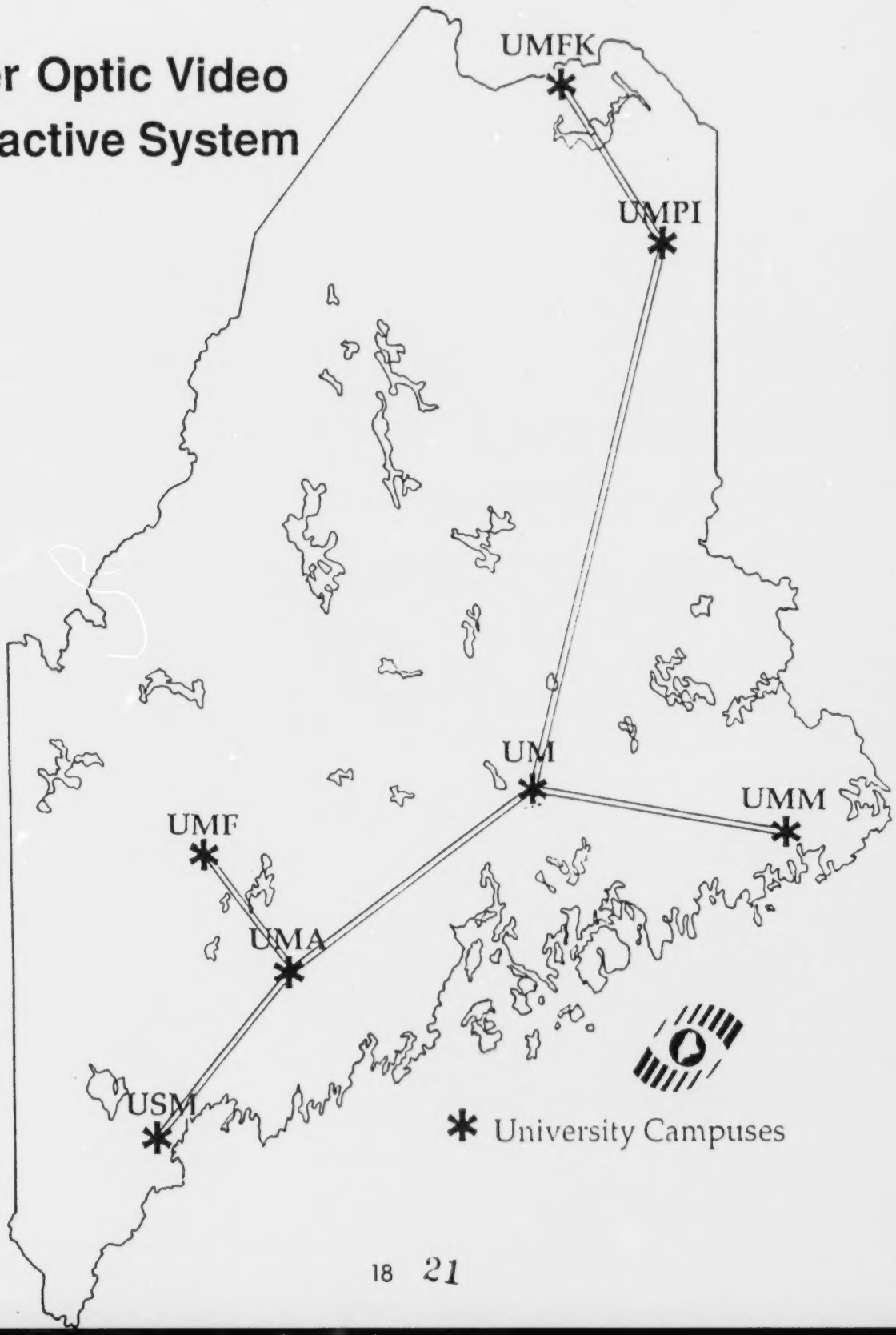
For samples of any of the CCM promotional materials listed, or for more information about the Community College of Maine in general, please contact:

Jane Russo
Assistant to the Executive Director
Distance Education
University of Maine at Augusta
University Heights
Augusta Maine 04330
(207) 621-3404

Appendix A

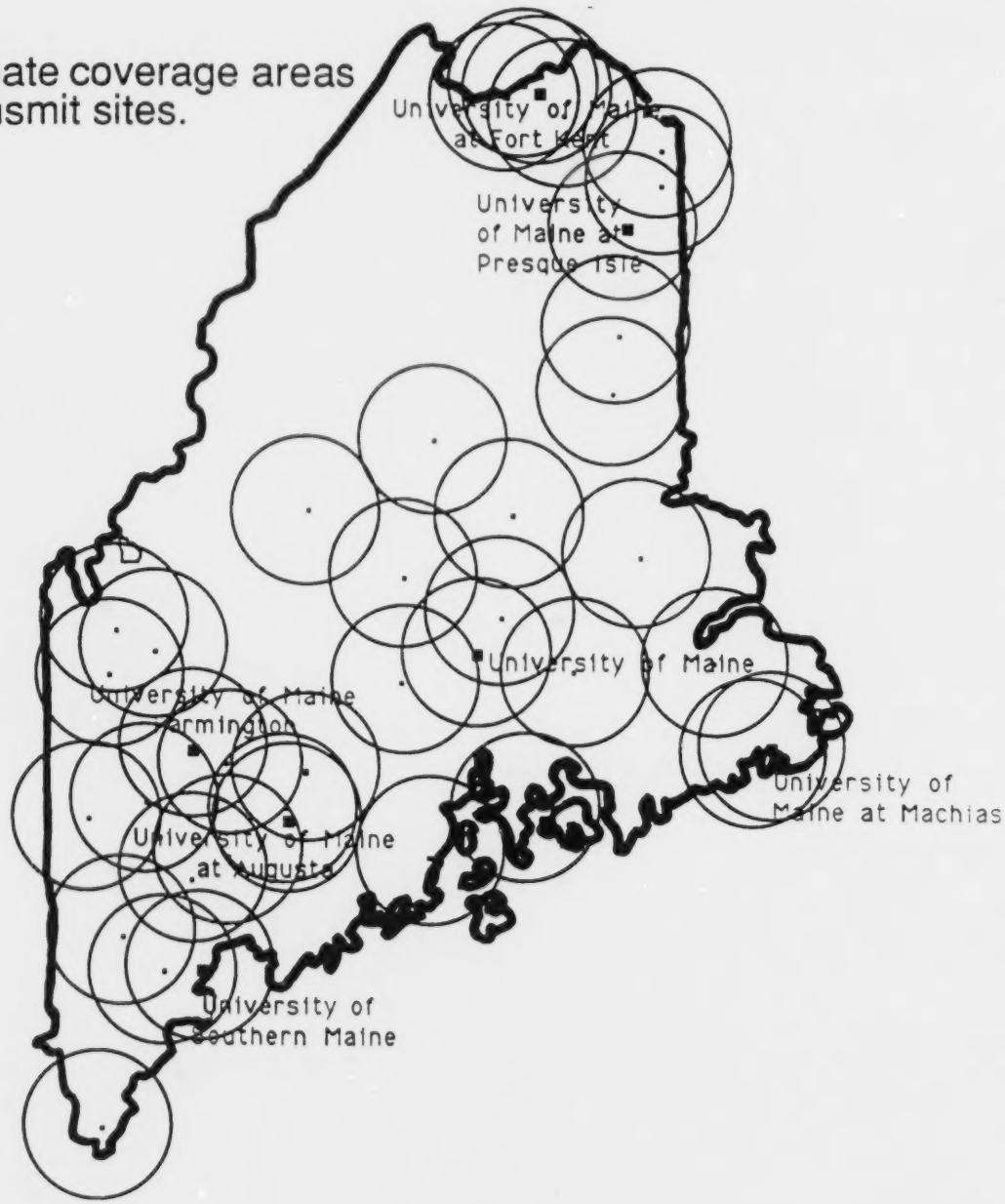
Community College of Maine

Fiber Optic Video Interactive System



Community College of Maine
Interactive Television System

Approximate coverage areas of all transmit sites.


University of Maine at Fort Kent
University of Maine at Presque Isle
University of Maine
University of Maine at Farmington
University of Maine at Augusta
University of Maine at Machias
University of Southern Maine

Appendix B

University of Maine at Augusta

Office of Enrollment Services

Fall 1989 - Fall 1990 CCM Receive Enrollment

	UMA		UMF		UMFK		UM	
	1989	1990	1989	1990	1989	1990	1989	1990
headcount	826	1299	219	4	72	79	191	362
full time	149	199	28	0	28	36	10	45
part time	677	1100	191	4	44	43	181	317
non-degree	460	779	170	4	35	38	113	238
degree	366	520	49	0	37	41	78	124
female	645	928	173	3	42	64	131	272
male	181	371	46	1	30	15	60	90
credit hours	2990	4750.5	846	12	246	313.5	636	1427
age								
22 or less	169	261	23	0	27	26	17	38
23 - 30	200	326	34	2	13	10	30	79
31 - 40	278	389	75	1	23	27	80	113
41 - 50	105	231	40	3	7	12	49	73
51 or more	52	65	11	2	2	2	13	17

* age does not total headcount because of missing values

University of Maine at Augusta

Office of Enrollment Services

Fall 1989 - Fall 1990 CCM Receive Enrollment

	UMM		UMPI		USM		Totals		
	1989	1990	1989	1990	1989	1990	1989	1990	% change
headcount	0	194	109	151	34	63	1451	2152	48.31%
full time	0	58	27	35	4	12	246	385	56.50%
part time	0	136	82	116	30	51	1205	1767	46.64%
non-degree	0	88	32	81	0	0	810	1228	51.60%
degree	0	106	77	70	34	63	641	924	44.15%
female	0	149	78	117	29	47	1098	1580	43.90%
male	0	45	31	34	5	16	353	572	62.04%
credit hours	0	697	378	538.5	102	189	5198	7927.5	52.51%
age									
22 or less	0	52	16	32	0	0	252	409	62.30%
23 - 30	0	40	27	36	3	16	307	509	65.80%
31 - 40	0	65	35	52	14	22	505	669	32.48%
41 - 50	0	25	25	26	10	19	236	389	64.83%
51 or more	0	9	6	5	5	3	89	103	15.73%

age does not total headcount because of missing values

3/1/91

University of Maine at Augusta

Office of Enrollment Services

Community College Receive Credits

Fall 1989 -Spring 1991

SITE	CREDITS Fall 1989	CREDITS Spring 1990	CREDITS Fall 1990	CREDITS Spring 1991
Allagash	•	54	60	48
Ashland	•	•	24	72
UMA	192	228	267	406
Bangor	27	30	21	69
Bath/Brunswick	432	435	520.5	570
Baxter School	•	•	18	57
Belfast	•	•	213	183
Bethel	129	126	84	131
Bingham	•	•	27	24
Calais	•	238.5	205	277.5
Caribou	66	54.5	70.5	111
Castine	3	12	9	15
Danforth	•	43.5	33	12
Deer Isle	•	•	90	75
Dexter	•	91.5	108	42
East Millinocket	•	258	235.5	129
East Sullivan	153	52.5	75	46.5
Eastport	•	•	87	93
Ellsworth	258	252	258	234
UMF	63	27	12	47
Fairfield	102	57	133.5	208.5
UMFK	157.5	393	48	97.5
Greenville	•	•	42	51
Guilford	195	114	210	193.5
Hodgdon	15	36	9	33
Houlton	131	168	232.5	243
Island Falls	36	22.5	30	24
Islesboro	60	51	36	30
Jackman	•	•	100.5	93
Jay	•	•	117	127.5
Jonesport	•	•	33	36
Kennebunk	79.5	81	30	51
Lewiston College	570	667.5	603	645

Limestone	1.5	18	6	21
Lincoln	*	*	75	33
Lisbon Falls	99	102	57	90
Loring AFB	100.5	108	130.5	66
Lubec	*	*	87	51
UMM	*	190.5	234	246
Madawaska	*	*	165	133.5
Maine State Prisoı	*	*	135	72
Mt Desert	*	*	109.5	126
North Berwick	*	12	45	45
North Haven	93	85.5	46.5	69
UM	0	0	48	0
USM	75	114	90	53
UMPI	36	12	3	60
Rangeley	*	*	18	46.5
Rumford/Mexico	436.5	556.5	436.5	420
Saco	*	42	174	148.5
Sanford	297	225	315	384
Sherman Station	*	*	45	42
Skowhegan	115.5	174.5	171	172.5
South Paris	*	*	148.5	213
Thomaston	882	670.5	663	725.5
Thorndike	*	*	45	24
Turner	*	*	34.5	54
Van Buren	88.5	90	40.5	76.5
Vinalhaven	36	75	60	39
Waldoboro	*	*	51	33
Waterboro	12	39	45	42
Wells	115.5	96	93	100.5
West Buxton	*	*	3	3
Winthrop	*	*	105	126
Wiscasset	148.5	153	154.5	162
Woodland	*	*	51	45
Total	5205.5	6256	7927	8397.5

Total sites 1989 = 34 1990 = 66 *not on line

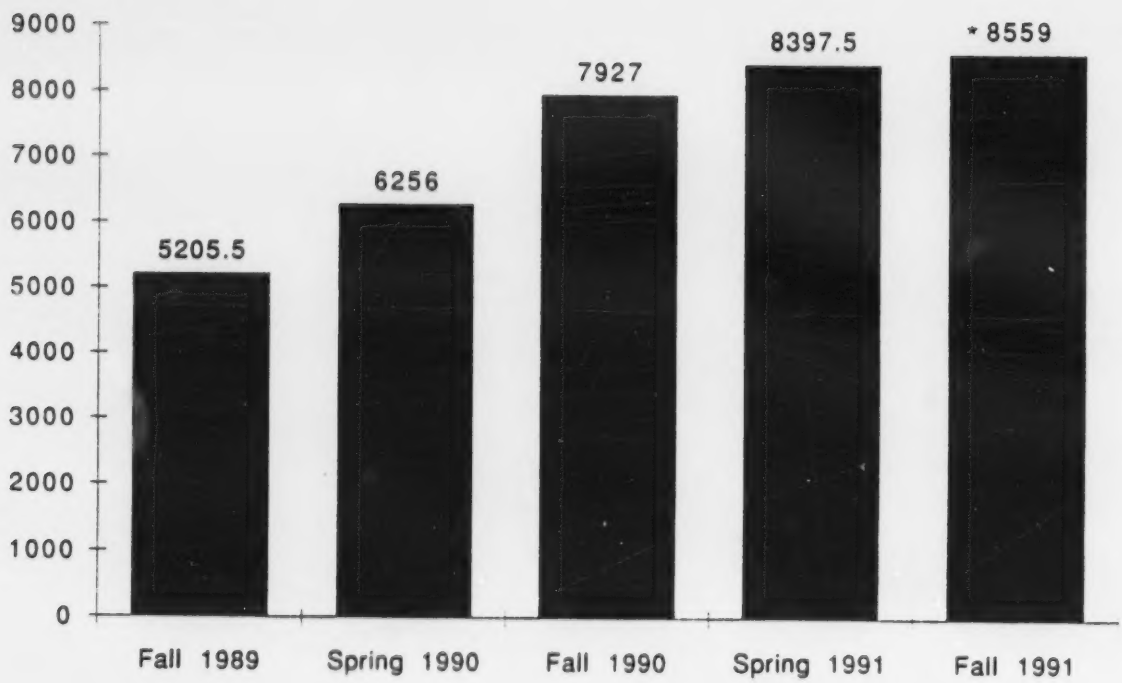
3/14/91

University of Maine at Augusta

Office of Enrollment Services

Community College Receive Credits

Fall 1989-Fall 1991

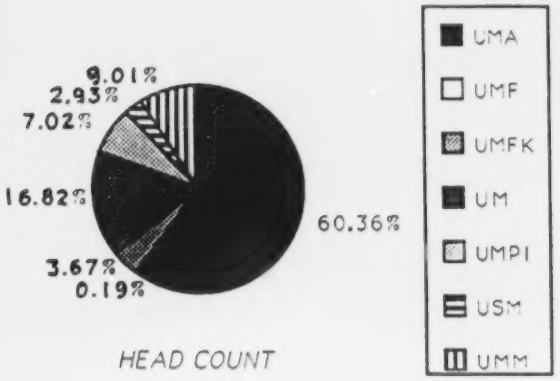


*Fall 1991 estimate

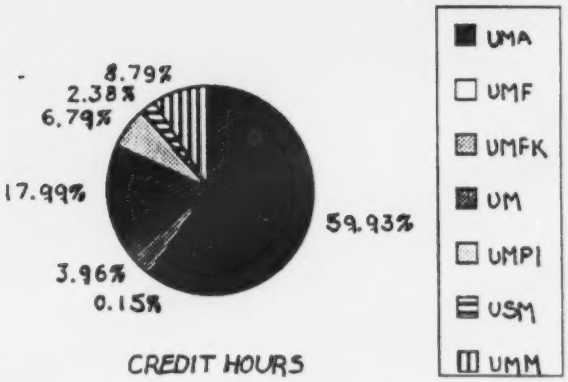
UNIVERSITY OF MAINE AT AUGUSTA

OFFICE OF ENROLLMENT SERVICES

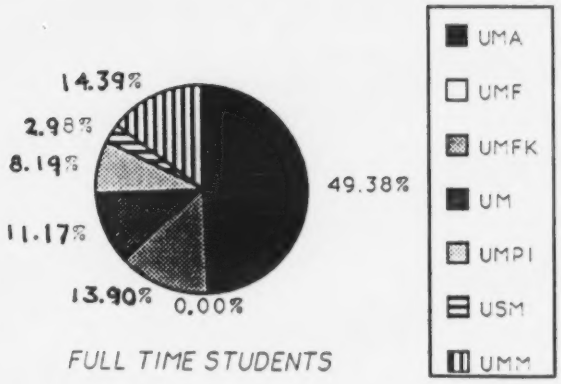
CCM ENROLLMENT FALL 1990



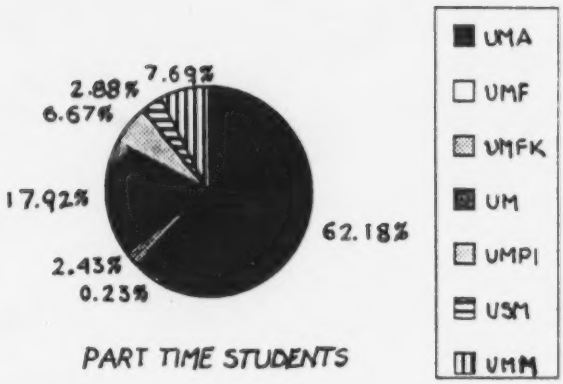
HEAD COUNT



CREDIT HOURS



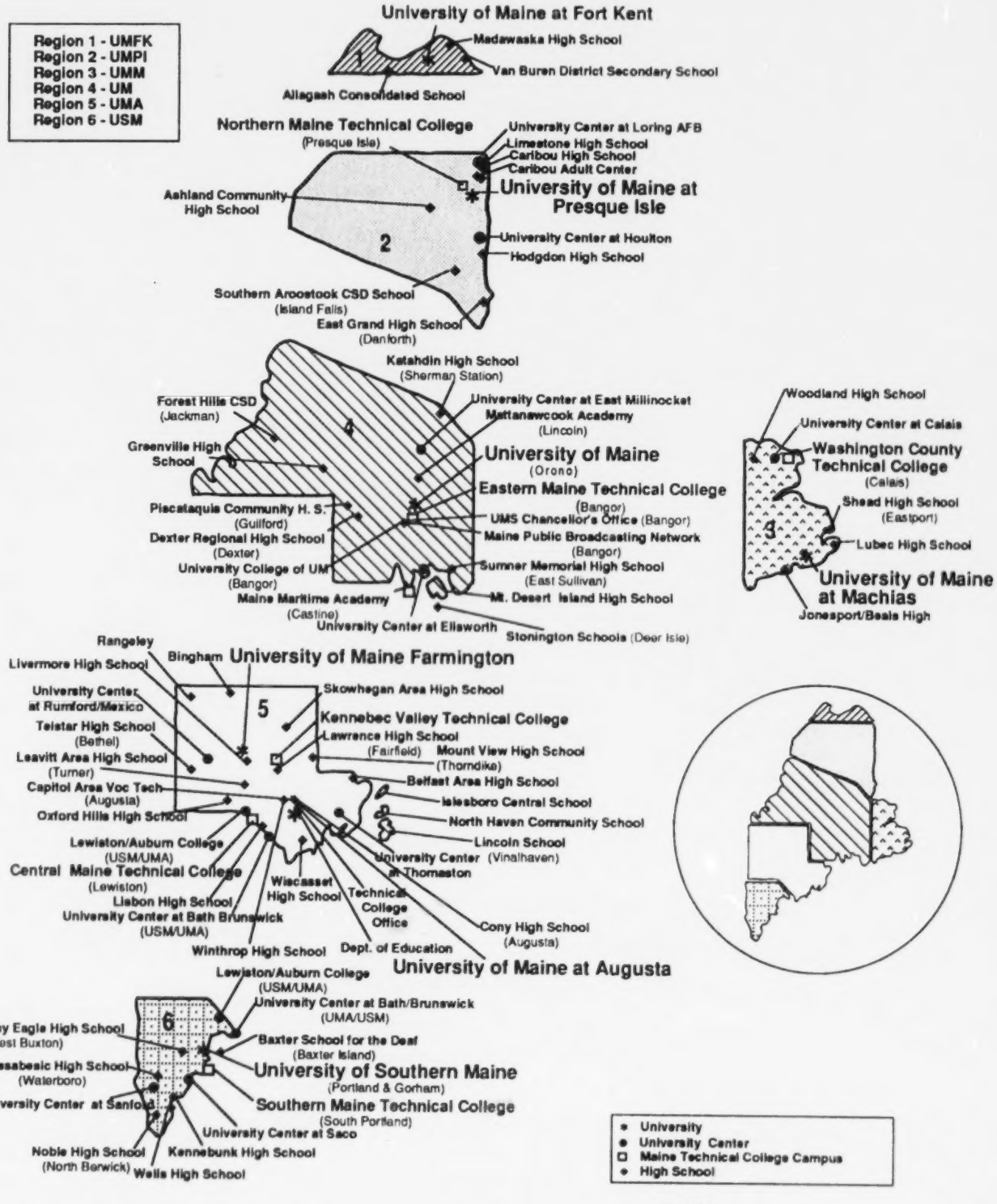
FULL TIME STUDENTS



PART TIME STUDENTS

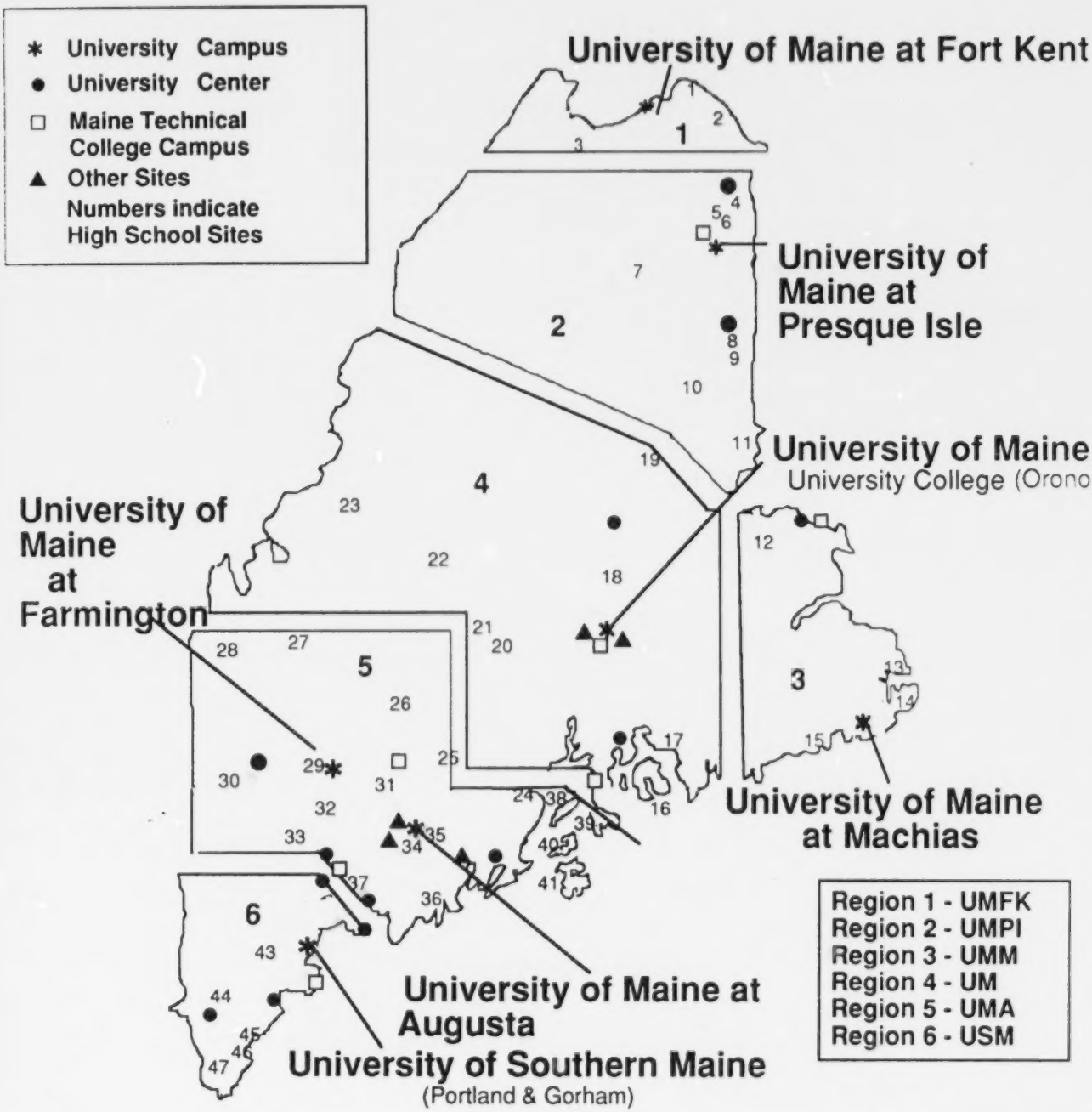
Appendix C

6 Regions of the Community College of Maine



3-11-91

The Community College of Maine Interactive Television Network


* University Campus
● University Center
□ Maine Technical College Campus
▲ Other Sites
Numbers indicate High School Sites
University of Maine at Fort Kent
University of Maine at Presque Isle
University of Maine
University College (Orono)
University of Maine at Farmington
University of Maine at Machias
University of Maine at Augusta
University of Southern Maine
(Portland & Gorham)
Region 1 - UMFK
Region 2 - UMPI
Region 3 - UMM
Region 4 - UM
Region 5 - UMA
Region 6 - USM

REGION 1

1. Madawaska High School
2. Van Buren District Secondary School
3. Allagash Consolidated School

REGION 2

4. Limestone High School
5. Caribou High School
6. Caribou Adult Center
7. Ashland Community High School
8. Houlton High School
9. Hodgdon High School
10. Southern Aroostook CSD School (Island Falls)
11. East Grand High School (Danforth)

REGION 3

12. Woodland High School
13. Shead High School (Eastport)
14. Lubec High School
15. Jonesport/Beals High

REGION 4

16. Mt. Desert Island High School
17. Sumner Memorial High School (E. Sullivan)
18. Mattanawcook Academy (Lincoln)
19. Katahdin High School (Sherman Station)
20. Dexter Regional High School
21. Piscataquis Community High School (Guilford)
22. Greenville High School
23. Forest Hills CSD (Jackman)

REGION 5

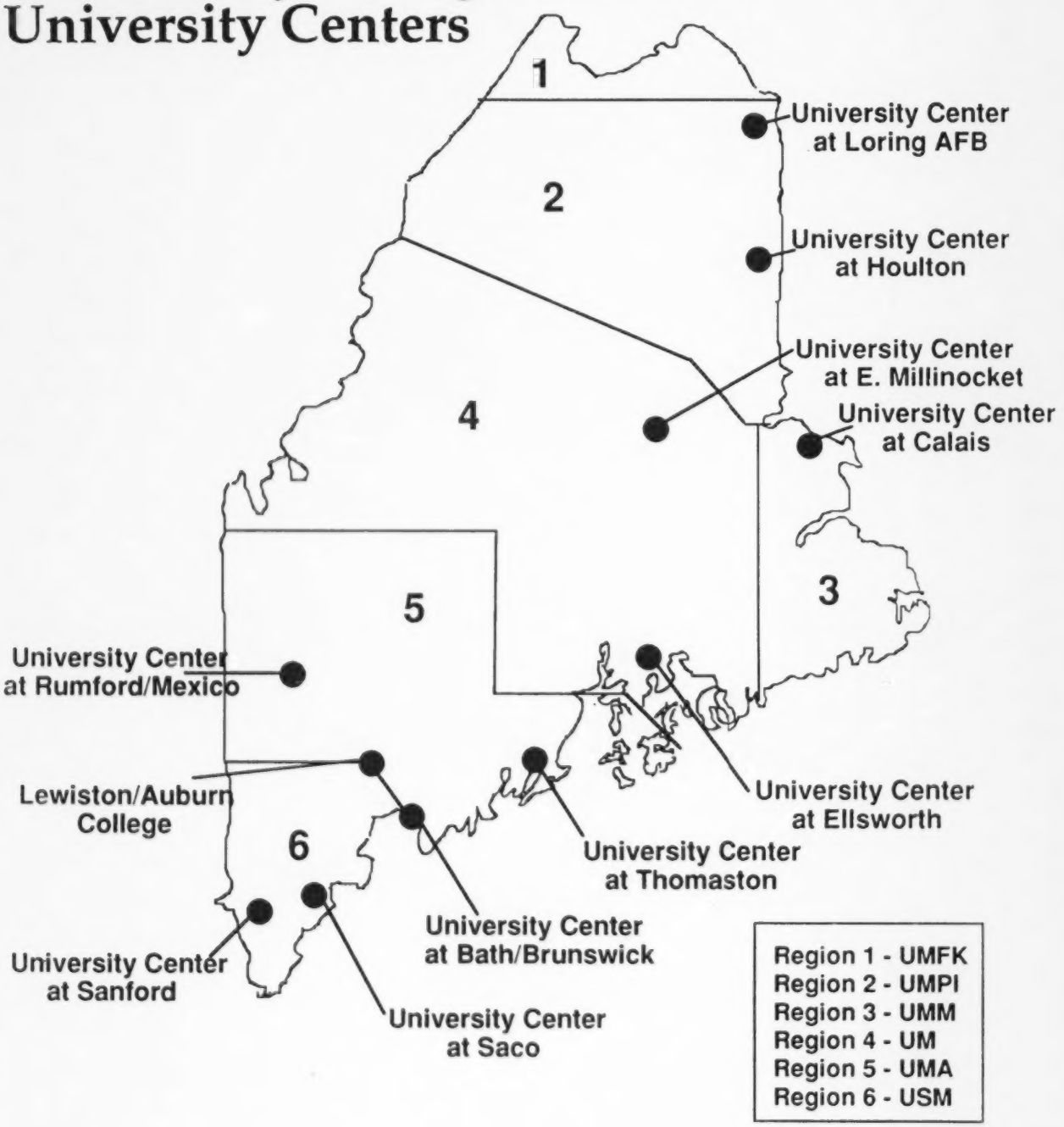
24. Belfast Area High School
25. Mount View High School (Thorndike)
26. Skowhegan Area High School
27. Upper Kenebec Valley High School (Bingham)
28. Rangely High School
29. Jay High School
30. Telstar High School (Bethel)
31. Lawrence High School (Fairfield)
32. Leavitt Area High School (Turner)
33. Oxford Hills High School
34. Winthrop High School
35. Cony High School (Augusta)
36. Wiscasset High School
37. Lisbon High School
38. Islesboro Central School
39. Stonington Jr. & Sr. High School (Deer Isle)
40. North Haven Community School
41. Lincoln School (Vinalhaven)

REGION 6

42. Baxter School for the Deaf
43. Bonny Eagle High School (West Buxton)
44. Massabesic High School (Waterboro)
45. Kennebunk High School
46. Wells High School
47. Noble High School (N. Berwick)

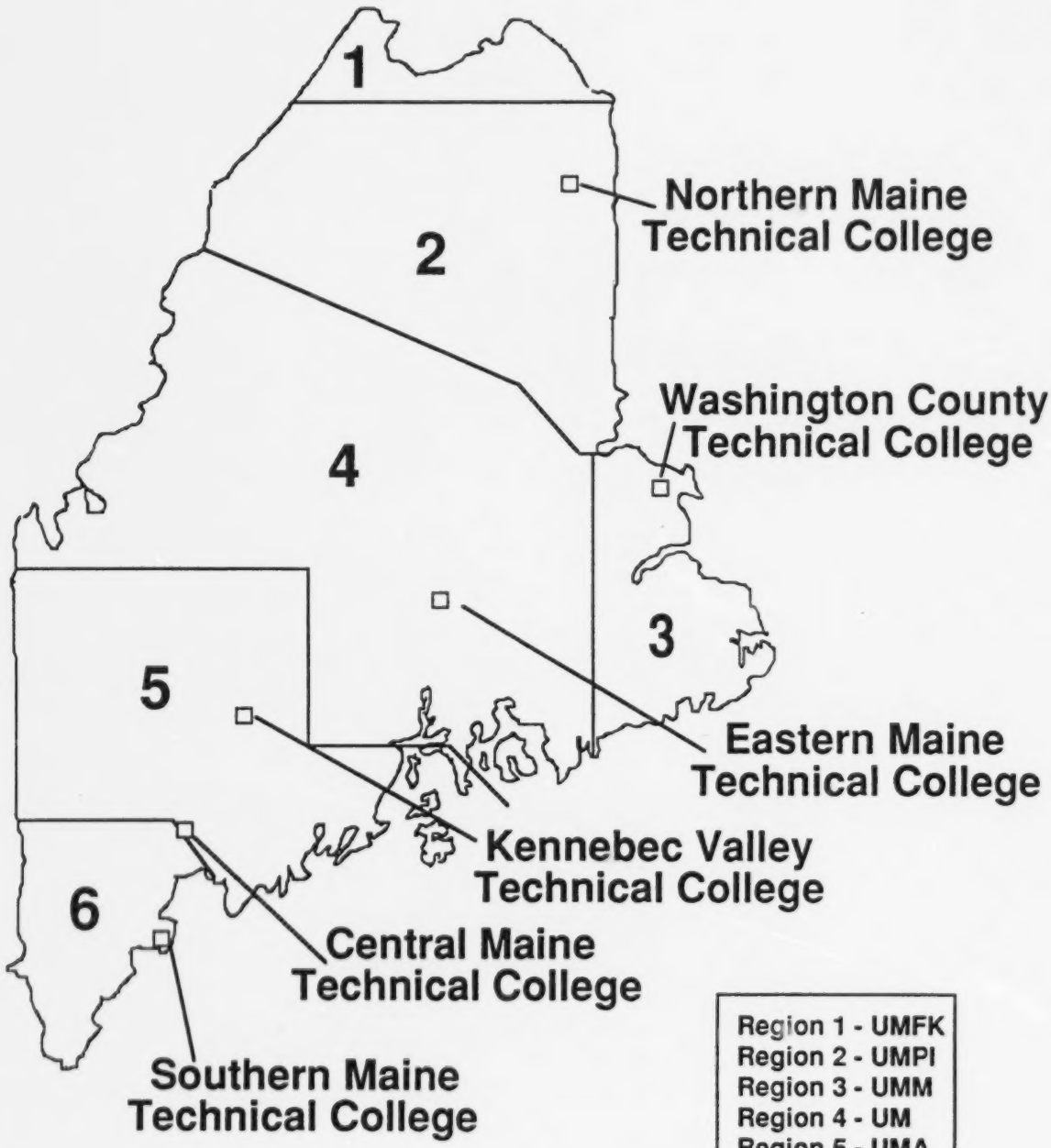
BEST COPY AVAILABLE

Regional Map
Community College of Maine
University Centers



Revised 1-18-91

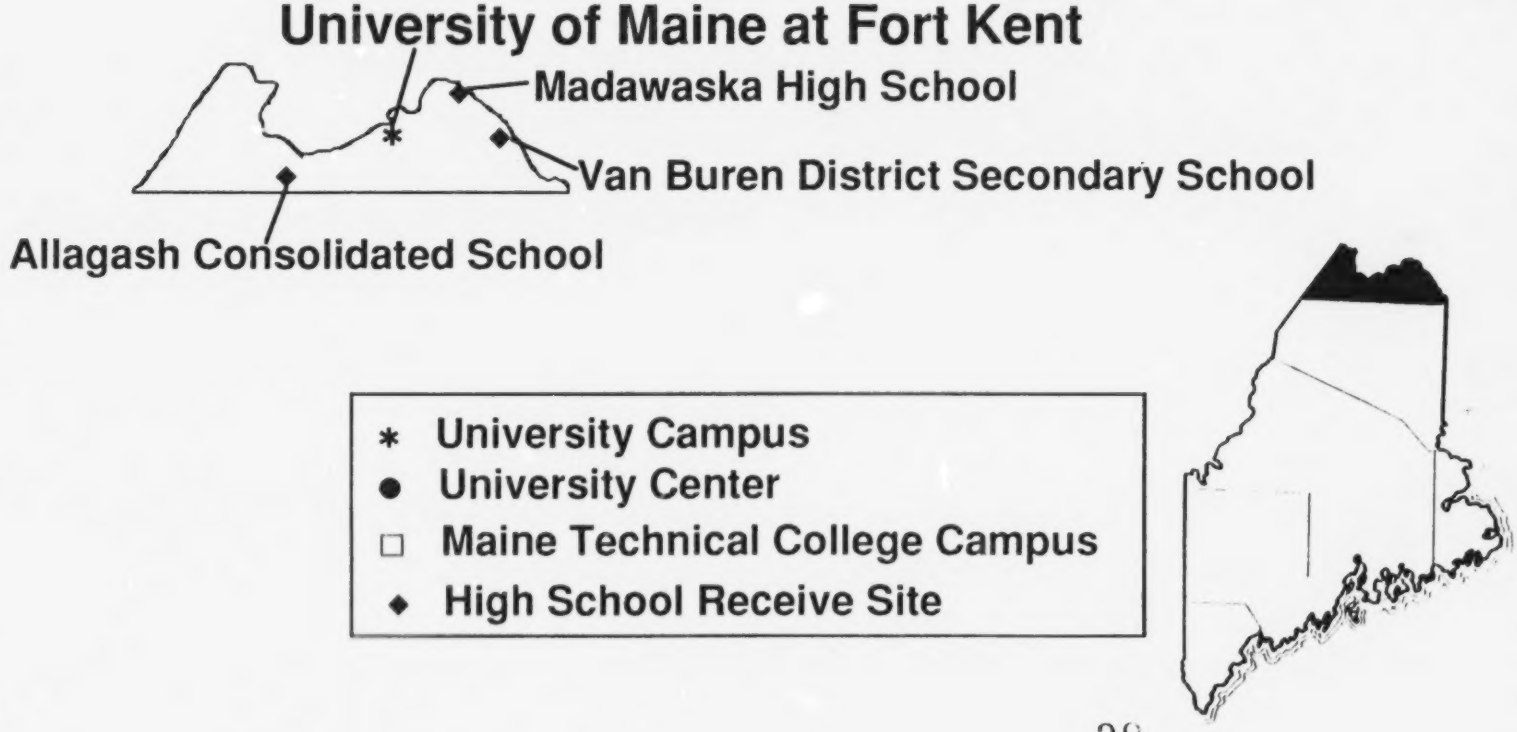
REGIONAL MAP - TECHNICAL COLLEGES



Region 1 - UMFK
Region 2 - UMPI
Region 3 - UMM
Region 4 - UM
Region 5 - UMA
Region 6 - USM

Revised 1-18-91

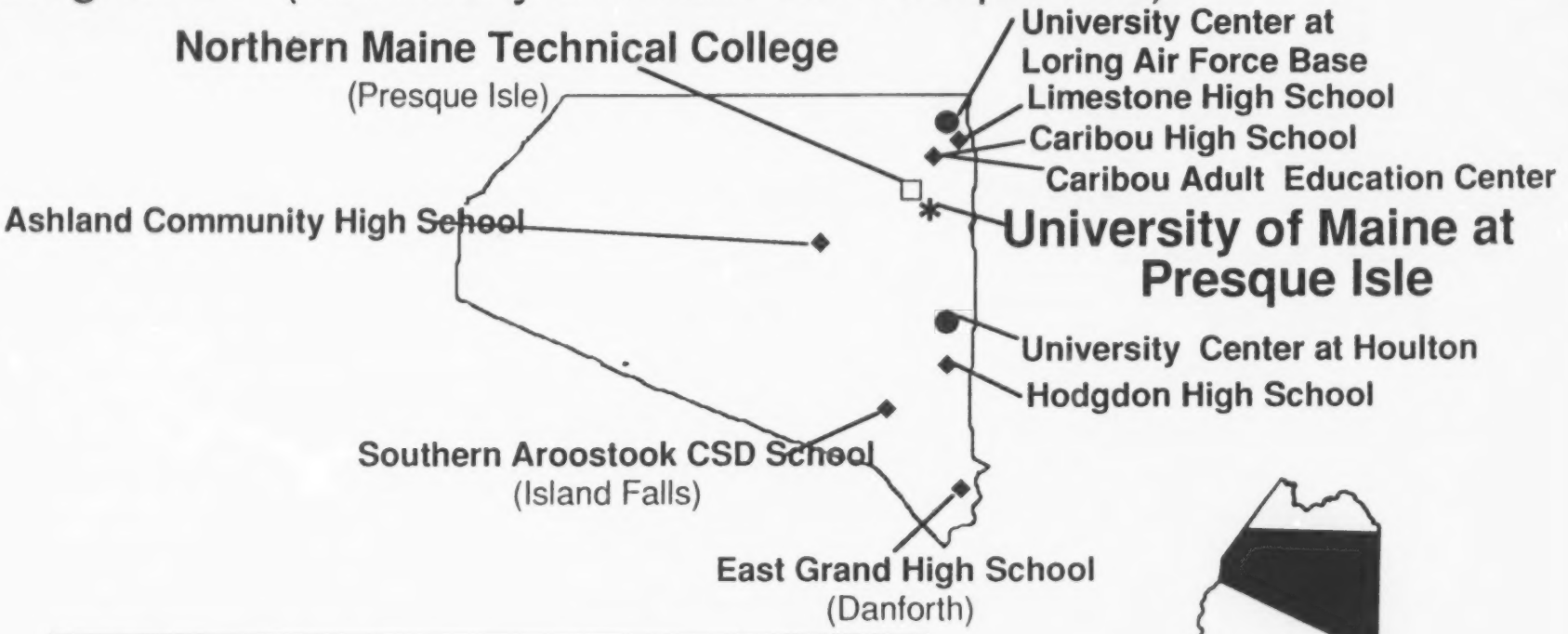
Community College of Maine
Interactive Television System
Region 1 (University of Maine at Fort Kent)

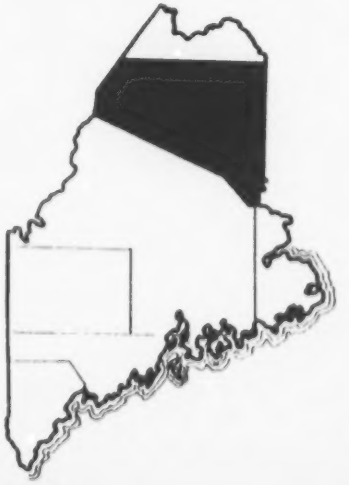

University of Maine at Fort Kent
Madawaska High School
Van Buren District Secondary School
Allagash Consolidated School
* University Campus
● University Center
□ Maine Technical College Campus
◆ High School Receive Site

1-14-91

Community College of Maine
Interactive Television System

Region 2 (University of Maine at Presque Isle)





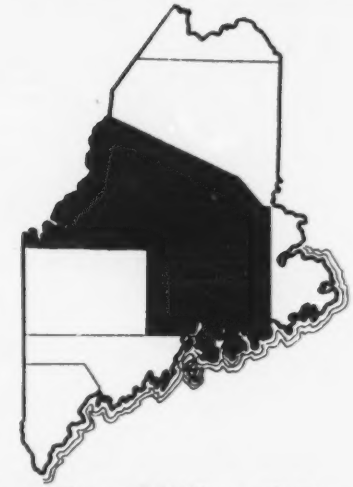
1-14-91

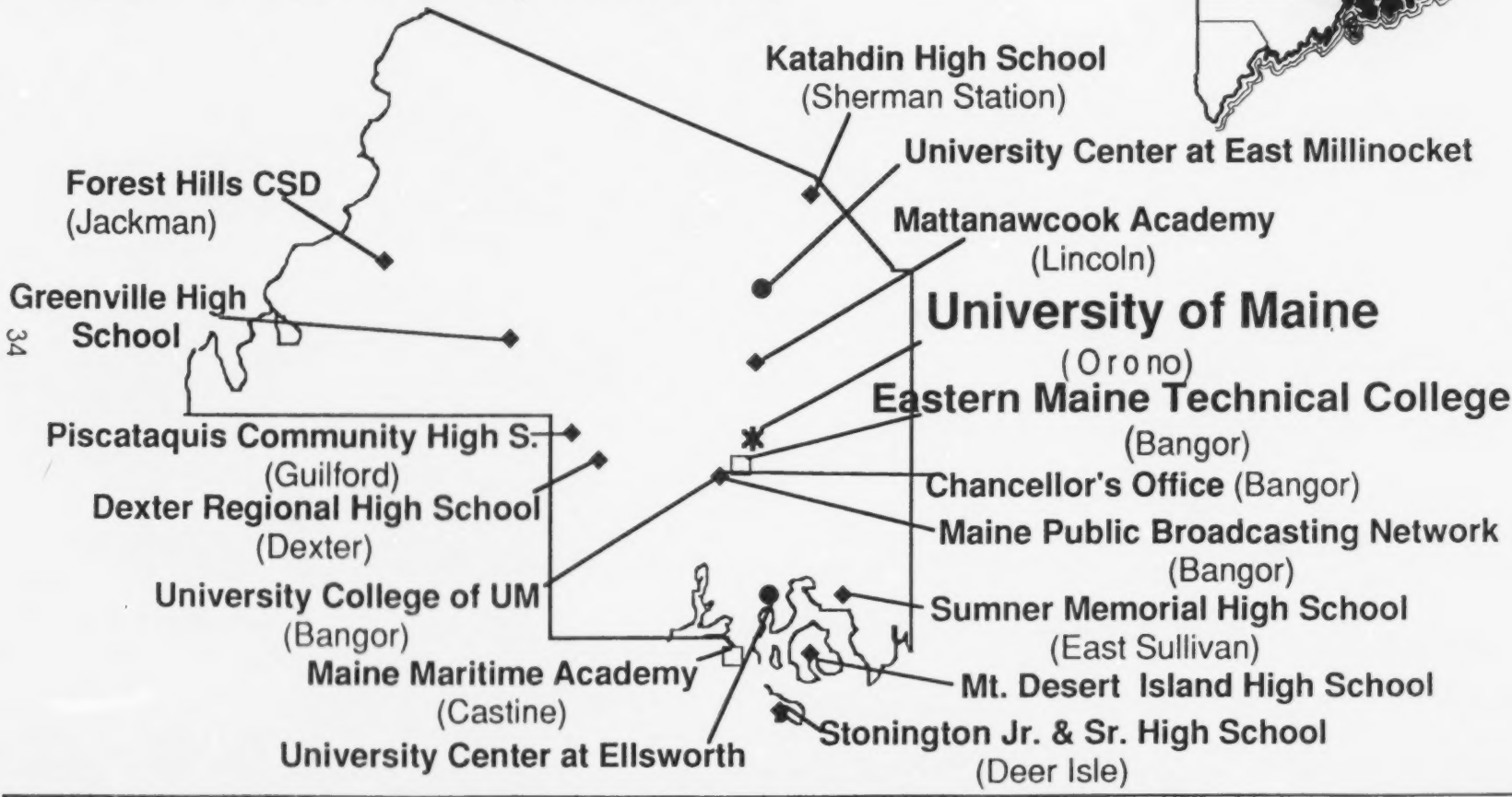
Community College of Maine
Interactive Television System
Region 3 (University of Maine at Machias)

- * University Campus
- ● University Center
- □ Maine Technical College Campus
- ◆ High School Site

1-15-91

Community College of Maine
Interactive Television System
Region 4 (University of Maine)





* University Campus ● University Center □ Maine Technical College Campus ◆ High School Site

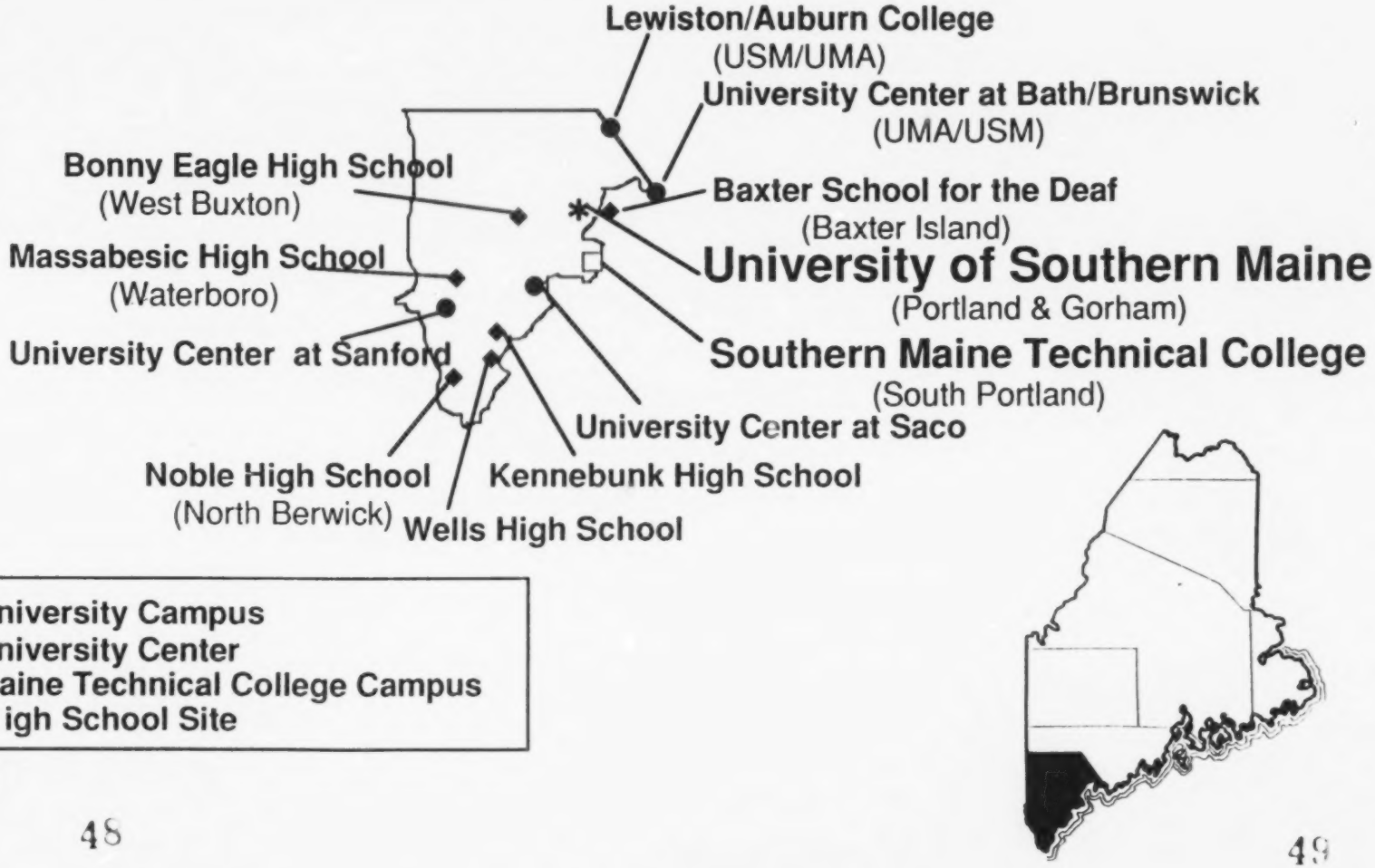
Community College of Maine
Interactive Television System
Region 5 (University of Maine at Augusta)

Rangely Lakes Regional High School
University of Maine at Farmington
Upper Kennebec Valley High School
(Bingham)
Jay High School
Skowhegan Area High School
University Center
at Rumford/Mexico
Kennebec Valley Technical College
Lawrence High School
(Fairfield)
Mount View High School
(Thorndike
Telstar High School
(Bethel)
Belfast Area High School
Leavitt Area High School
(Turner
Islesboro Central School
Capitol Area Voc Tech
(Augusta)
Oxford Hills High School
North Haven Community
School
Lewiston/Auburn College
(USM/UMA)
Lincoln School
(Vinalhaven)
Central Maine Technical College
(Lewiston)
Wiscasset
High School
Cony High School
(Augusta)
University Center
at Thomaston
Lisbon High School
Winthrop High School
University Center at Bath/Brunswick
(USM/UMA)
Technical College Office
(Augusta)
Department of Education
University of Maine at Augusta

* University Campus
● University Center
□ Maine Technical College Campus
◆ High School Site

1-14-91

Community College of Maine
Interactive Television System
Region 6 (University of Southern Maine)



1-15-91

Appendix D

Off-Campus Library Services
Student Requests By Center/Site
For Period July 1, 1990 to February 28, 1991

(Includes Library Cards, Reference, Journal Article, Interlibrary Loan, and Special Bibliographies)

CENTERS

Bath/Brunswick	264
Calais	25
Ellsworth	99
Houlton	166
Lewiston/Auburn	39
Loring	4
Millinocket	41
Rumford	65
Saco	8
Sanford	159
Thomaston	1126

SITES

Allagash	1
Ashland	5
Augusta (Cony)	4
Baileyville	14
Belfast	29
Berwick	5
Bethel	115
Bingham	11
Caribou	14
Castine	2
Danforth	7
Deer Isle/Stonington	122
Dexter	3
Eastport	0
Fairfield	12
Falmouth/Baxter	1
Greenville	16
Guilford	136
Hodgdon	0
Island Falls	12
Islesboro	0
Jackman	57
Jay	2
Jonesport	4
Kennebunk	19
Limestone	0
Lincoln	28
Lisbon Falls	10
Lubec	34

Madawaska	7
Mt. Desert	15
North Haven	33
Rangley	7
Sherman	6
Skowhegan	126
South Paris	101
Sullivan	1
Thomaston/MSP	32
Thorndike	0
Turner	0
Van Buren	44
Vinalhaven	34
Waldoboro	16
Waterboro	14
Wells	28
West Buxton	0
Winthrop	30
Wiscasset	33
Other	48
Total	**3235**

Appendix E

University of Maine at Augusta
Community College of Maine
- 1990-91 Annenberg/CPB Funded Proposals -

Raymond Albert, Assistant Prof. Computer Science, UMFK
COS 100 Intro to Programming - COS 100 will be restructured to support electronic dissemination/retrieval of all currently paper-based classroom evaluation media in such a way as to successfully demonstrate the capabilities/benefits associated with expanded use of the electronic data transmission capabilities available through ITV and the successful integration of computing resources available at various ITV centers statewide.

Richard Asam, Assoc. Professor of Speech/Theatre, UMPI
SPE 110 - Introduction to Human Communication - Introduction to Human Communication is a broad based survey of the variety of contexts in which we communicate. The course includes examinations of intrapersonal, interpersonal, small group intercultural, public and mass communication. The proposal would modify this lecture, discussion and skills development course to include instruction in the effective use of technologies. As part of the public speaking unit, students at different sites would structure their speeches differently to take maximum advantage of the facilities available. Existing PBS video productions may also be used.

Harry Batty, Assoc. Professor of English, University College
ENG 101A - Critical Written Expression - This course will incorporate collaborative learning strategies into the freshman composition course, using FAX machines at the remote sites to transmit working drafts of student papers and instructor's responses and by increasing student/teacher interaction by establishing telephone office hours using the toll-free phone bridge.

Gregory P. Bazinet, Assistant Professor, USM - Gorham
ITP 340 - Quality Control Fundamentals - Designed as an introductory level course providing insight into the importance of quality as it is and can be in the manufacturing, service and information sectors of our industrial world. Instructor proposes to integrate computer-based communication, graphics, pre-produced video, ITV, videodisc and quality assurance software for delivery to students statewide.

Karen Demsey, Professor of Music, UMA
MUS 123 - Understanding Music - Instructor proposes to restructure course with addition of added technological capabilities to ensure its effectiveness over the ITV system. Suggestions include an improved sound system, the application of existing computer, synthesizer and MIDI capabilities to the curriculum, and an ability to link up with concert, opera and ballet performances, seminars or clinics.

Kathleen Dexter, Director of Advising & Counseling, UMA
Career Counseling/Planning/Guidance Services for Distance Education Students - Proposal outlines an effective strategy to deliver student support services to learners at a distance interested in developing appropriate and personally satisfying career goals. It will also assist student in integrating their educational plans with their career aspirations. A comprehensive strategy will involve the coordination of related and already existing

E. Donald Naber, Associate Prof. Biological Sciences, University College
BIO 105A/105A Human Biology and Lab ~ Proposal to develop laboratory activities for BIO 106A that will allow distant learners to complete the majority of the course in their own homes and the prepare video materials and methods to enhance these courses. It would gather existing methodology used to present laboratory science courses to distant learners elsewhere in the country.

Paula Petrik, Assoc. Professor of History, University of Maine
History 414 Law and Society ~ The aim of this proposal is to modify the existing course for presentation through ITV under the rubric of Topics in History (HTY 289 - UMA) through the production of two slide shows produced via a Macintosh computer, the creation of two multimedia presentations produced by MacroMind MediaMaker or Director and the accompanying material for these presentations. These projects will augment those computer-generated materials already part of the course. In addition, the investigator would like to begin preliminary exploration of the possibility of distant learners' utilization of multimedia technology to create "shows" for exhibition over ITV.

Russell H. Rainville, Associate Professor, Science & Math Dept., UMF
Statistics ~ Proposes to develop an interactive course in statistics which would be equivalent to courses now required in baccalaureate programs in liberal arts and business offered on the campuses of the University System. The course would utilize a variety of media and technologies to produce an educational experience which will achieve course objectives for students who have limited access to faculty.

Roger Richmond, Assistant Prof. of Architecture, UMA
Architecture Design ~ This three-part course will encourage critical thinking skills and may be taught by an ITV design teacher in conjunction with a local on-site art teachers. Each class will include a combination of visual materials that will expand the classroom. These will consist of videotapes, slides, photographs, models, computer graphics, guest lecturers, etc. The aim of these materials will be to demonstrate to students that they need to expand their definitions and understanding of design.

Stuart Swain, Science/Math Division, University of Maine at Machias
Algebra II ~ The revised course will emphasize student collaboration through small group work and computer-based technological support. It will also ensure lively and imaginative use of technology, supporting a personalized, cooperative and discover-style learning environment, incorporating computer graphics, pre-produced video, and videodisc.

Marianne Steinhacker, Assistant Professor of Nursing, UMA
Pharmacology ~ This course would utilize computer and laser disc technology in a self-paced format for use in the Nursing Education Program. The content would be completed by the students over a two or three semester period of time with completion coordinated with content in other nursing programs. Students would have flexibility in scheduling time to work on content and would need to demonstrate mastery of the unit before moving to the next unit. Faculty would act as a resource to students needing assistance or having difficulty with materials.

Arthur Williams, Assist. Professor of Speech & Drama, U Maine Machias

efforts/resources at the participating sites, the use of the ITV and video medium to develop career planning workshops, integration of computer-based career guidance systems and the development of a computerized collection management and interlibrary loan system for the existing Career Resource Centers.

Sharon Gaudin, Coordinator of Student Services, UMF
Informational Technologies to Assist Academic Advising at Extended Sites - Proposes to develop an orientation video for students at extended sites and a standard computer screen/file to be used by advisors for students at these sites.

Gail L. Lange, Professor, Sciences & Math Dept., UMF
College Algebra - Proposes to restructure the College Algebra course by employing a variety of learning styles in and outside of class. In class, a combination of lecture, videotape, discussion and computer labs will be used. Out of class, the students will solve problems on paper, use the computer as an additional tutor and problem-solver, and write papers dealing with concepts and problems.

Larry Lapointe/Michael Wing, UMA
English 101 - Proposes to restructure English 101 utilizing a team taught approach. Computer software will be used for writing demonstrations in class and for brainstorming outlining, as well as for research and documentation. The instructors will visit students in remote sites to individualize the approach and will employ computer networking when available.

Grace Leonard, Associate Professor of Psychology & Mental Health, UMA
PSY 123 Introduction to Community Mental Health - Through use of computer conferencing and teleconferencing methods, student generated video productions, and character generator graphics, students will demonstrate the knowledge and skills required for working within a community mental health system. Opportunities for conducting interviews, for documenting observations and for applying learned skills to a variety of community-based mental health services will be provided.

Ruth Munson, Office of Special Programs, University College
Introduction to University of Maine System
Getting Started - Proposal to prepare a set of videotapes for prospective students of postsecondary system in Maine. These videotapes would be accompanied by printed transcripts for loan to students. The students could view the tapes in the comfort of home and family and formulate questions before approaching their center or campus, thus making more efficient use of available resources.

Dan Murphy, Assist. Professor of Music, UMA
MUS 181 Piano Lab I - MUS 181 is designed to assist the student in the development of basic keyboard performance skills. Proposal would develop a multimedia tutoring station(s) through the use of Laser Disk technology. Students would be able to hear musical examples played on their keyboard at any tempo they choose while they watch it being performed correctly. Any section of a musical exercise could be slowed down and studied. Students would receive printouts of music or graphic examples that they wish to study further.

ENG 104 Public Speaking - ITV version of this course would make a radical shift from the current speech-intensive model. Stress would be laid upon mastery of communication theory and a consumer's knowledge of effective speech communication. Rather than giving a number of speeches, the student would study the construction of speeches through video and computer simulation. Speaking for the camera would be introduced and studied in detail. Student speeches would be videotaped and made available to the instructor as a method of assessing student progress.

Joseph Zubrick, Assoc. Professor of Theatre, UMPI
SPE 101 Public Speaking - SPE 101 is a performance based course encompassing various aspects of communication including interpersonal, small group and public speaking. The delivery of the speeches is aided by presentation of visual media, including slides, overhead projections and VHS tapes. To address the limits of the current two-way audio, one-way video system, student performances will be videotaped and submitted to the instructor for critique and possible replay over the system. The small group format will be used for regular class assignments and to provide immediate feedback to student presenters.

Appendix F

COMMUNITY COLLEGE OF MAINE
ITV SYSTEM USERS
1989-1991

AIDS Support Group: Workshops on training volunteers and working with the media have been held on the system.

Alpha One: Staff meetings have been conducted between Bangor, Presque Isle, Portland and Augusta.

American Lung Association: Organizational meeting for "Trek Across America" to raise money for lung disease research.

Associated Press: AP held it's Board Meeting on the system between Portland, Presque Isle and Bangor.

Center for Engineering Studies (UTEC Members Meeting): Engineers from USM and UM have held interactive meetings on the system to discuss committee business.

Child and Family Institute: Head Start Training has been presented by Dr. Jud Smith in a series of interactive programs aimed towards child care providers. They also presented a program on psychological disorders in infancy by Michael Trout, Director, The Infant Parent Institute in Champaign, IL.

Child Development Services: CDS held an ITV seminar for people at five video-interactive locations around the state.

Classified Employees Assembly: Assembly business is conducted between Augusta and its off-campus centers.

Continuing Education Office: Six all day, six-way video interactive classes in Advanced Boundary Law were aired on various Saturdays from February through April.

Cooperative Extension: A number of cooperative extension seminars have been held on the system ranging from Pesticide Application to Child Care Training. Cooperative Extension also participated in a satellite teleconference that was transmitted to various sites in the system.

Department of Conservation: This group participated in a satellite teleconference.

Department of Economic & Community Development: Monthly interactive meetings between Augusta and Portland eliminates the necessity for participants from southern Maine to travel to Augusta. They have also held a public hearing on new housing regulations, and a number of workshops on different topics.

Department of Education: Many divisions of DOE have used the

ITV system. The Special Education Division has used the system extensively for informing their employees about new regulations and policies. It has been used to conduct Consumer Forums for the Handicapped. DOE has also held Teacher In-service Programs, Adult Education Updates, Financial Aid Seminars, School Health Workshops, Informational meetings for School Food Services, PSAT information programs, Fitness and Health information programs, and a P.R.E.P. Program update. DOE has also sponsored afternoon workshops for high school teachers on subjects such as "Wellness" which was a series of four programs dealing with issues of stress, nutrition and exercise. They are also running a series of Friday afternoon workshops called "Seminars in Librarianship." The "Healthy ME/Healthy Maine Project has used the system to demonstrate Grant Applications and Information. There have also been satellite teleconferences that have been both transmitted live over the system and recorded for later use. The DOE Advisory Committee holds its meetings over the system.

Department of Labor: Rapid Employment Training Initiative - "From Pink Slips to Golden Opportunities" - A series of workshops dealing with unemployment concerns and issues called "From Pink Slips to Golden Opportunities" were broadcast statewide.

Department of Human Services: Administrative hearings were broadcast both video and audio interactive over the system between Augusta and various other locations.

Forum-A: William Yellowtail, Montana state senator who represents the Crow and northern Cheyenne Indian Reservations, spoke from the UMA auditorium to high school students at connected high schools.

Governor Baxter School for the Deaf: GBSD held a statewide video-interactive meeting for parents.

Governor's Distinguished Lecture Series: The Governor's office has offered a Distinguished Lecture Series on a quarterly basis. These lectures originate from Augusta and are interactive with several sites allowing members of the audience at the remote sites to speak directly with either the Governor or the lecturer at the conclusion of the speech. Speakers have ranged from Captain Kangaroo to William Bennett to Arnold Schwarzenegger.

Health Policy Advisory Council: The Council held a statewide forum on Health Policy called, "Access to What? Defining a Basic Level of Health Care" which involved both statewide comment as well as local brainstorming sessions.

Human Development Institute: A three hour program on Nursing Care and Quality Assurance was held on the system.

Human Services Development Institute: Two programs on Early Intervention have been held on the system with a third planned for May. Two out-of-state content experts were brought in for

each program. Along with Maine specialists, they made first a five-hour and later a four hour presentation.

ITV Advisory Council: Council business is conducted over the system between Augusta and Bangor.

Joint Planning Board on Telecommunications: The Board meeting was held between Augusta and Bangor.

Lotto America: Two one-hour presentations were held introducing lottery agents to Lotto America. Forty-two ITFS sites were involved.

Maine Bar Association: A general meeting was held connecting members in Portland and Augusta.

Maine CITE: Maine CITE is running a series of interactive programs over the course of twenty-four months on the use and availability of technology for the disabled. These programs have included demonstrations of workplace, home, and recreational technology for people with disabilities as well as discussions of general issues such as the new Federal Americans with Disabilities Act.

Maine Consortium for Health Professions Education: The Board Meeting for this organization was held over the system.

Maine Council on Vocation Education: Dr. Willard Daggett, Director of New York's Division of Occupational Education spoke statewide and answered questions on "Education for a New Age."

Maine Educational Services: An ITV and ITFS event was held to present an update on "Operation Opportunity."

Maine Emergency Management Agency: MEMA presented programs on flood awareness over the ITFS system.

Maine Federation of Womens' Clubs: MFWC observed the Centennial Celebration of womens' clubs by participating in a satellite teleconference that was downlinked to the UMA auditorium.

Maine Independent Living Center: This nonprofit organization held a staff meeting between two video-interactive sites and an ITFS site.

Maine Law Review Class Reunion: The class reunion was transmitted between UMA, USM, UM, and UMF.

Maine Legislature: The Education Committee held a public hearing during which citizens were able to interact with the Committee in the UMA auditorium from six remote sites. The Commission to Assess the Impact of Increased State Spending on the University of Maine System held a public hearing and connected all seven campuses and the UMA region ITFS sites.

Maine Municipal Association: MMA held a 4-way video interactive program explaining changes in laws affecting municipalities in 1990.

Maine Relearning Steering Committee: Committee business is conducted over the system between Presque Isle and Augusta and Fort Kent and Augusta.

Maine Science Center: The Science Center held a public hearing at five video-interactive locations.

Maine Studies Center: High school students at selected high schools had opportunities to interact with a variety of professionals in preparation for a tour of Eastern Europe last summer.

Maine Systems Assessment Commission: This group held two public hearings over the system prior to issuing their report on Mental Health Reform in Maine.

Maine Telecommunications Users Group: 2-way interactive meeting.

Maine Veterans Home: A two part pilot program in the field of drug therapy for the elderly was broadcast to twelve sites around the state. A third program in June on the topic of Geriatric Diabetes involved seventeen ITFS sites throughout the state.

Maine Waste Management Agency: The agency used video-interactive sites to hold hearings and ask for public testimony on new waste management laws.

Maineworks: During the last academic year the Governor used the system for "Maineworks," a talk show aimed towards exposing high school students to career options. "Maineworks" was a three guest interview program during which each guest discussed his or her work, and was the subject of a pre-produced "slice of life" video. High school students in the Augusta auditorium and at all connected high schools around the state were able to ask questions.

Medical Care Development: MCD assisted in the preparation of the Maine Veterans Home programs and a Scoliosis Screening Program for DHS. An ITFS program on "Networking for Mental Health" connected mental health consumers at nineteen sites so they could receive information updates and join in wide ranging discussions of services and support.

Military Advisory Committee: This group met over the system between four locations including Loring Air Force Base.

New England Telephone Company: NET kicked off its United Way campaign with skits and testimonials from NET employees in several locations around the state.

Office of Community Development: This group held a two-way video-interactive meeting on the system between Augusta and Orono.

Office of Comprehensive Planning: OCP used the ITV system to link together six interactive sites and nine ITFS sites to inform planners about Maine's Growth Management Program's new laws and to respond to questions. Interactive porgrams outlining changes in new plumbing codes were broadcast over the course of two weeks reaching more than 1000 plumbers throughout the state.

Senior Spectrum: Senior Spectrum participated in a satellite teleconference which was downlinked in Augusta and transmitted to audiences in Augusta and Portland.

Small Business Development Center: This group downlinked a satellite teleconference and transmitted the program over the ITV system.

UMA Admissions: A "Becoming a Student" Workshop was held over the ITFS system for Augusta region sites and centers.

UM Commission on Educational Uses of Information Technology: The Commission has conducted its business over the ITV system between UMA and MPBN for the past year.

UM International Programs: A meeting was conducted between students at USM and UM who were going to participate in foreign study programs.

UMS Chancellor's Office Advisory Committee: Committee business is conducted between different campuses.

UMS Energy Reduction Meeting: A system-wide meeting was held to exchange ideas about ways to reduce energy consumption on each campus.

UMS Program Planning Steering Committee: General committee business was discussed over the system between six campuses.

UMS ITV Technical Staff Meetings: Seven-way interactive meetings are held to discuss a variety of issues.

UMS Office of Professional Education Development: This group holds video-interactive meetings periodically on the system.

University/State Government Partnership Program: A discussion was held between three participating locations.

UMPI Public Relations: A seminar on "How to Reach People" was held between UMPI and UMFK for local organizations interested in public relations and newsletter production.

USM School of Law: Law Related Education has held three

video-interactive workshops on the subject of relating law to elementary school teaching and learning.

Date: 5/17/91

ERIC Clearinghouse for
Junior Colleges
MAY 29 1992